

ORDER NO.AD9902016C2

Service Manual

Tuner

ST-HD501

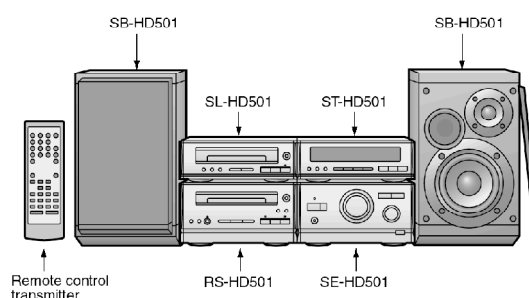
Colour

(N) Gold Type

Area

E Europe, East Europe and Russia.

System: SC-HD501



SPECIFICATIONS

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

Note: Refer to the service manual for Model No. SE-HD501 (ORDER NO. AD9902014C2) for information on "ACCESSORIES", "INSTALLATION", "CONNECTIONS" and "PACKAGING".

Specifications

■ Pre-amplifier section

Input sensitivity/impedance
EXTERNAL: 300 mV/15 k Ω

Output level
EXTERNAL: 250 mV/1.5 k Ω

■ FM tuner section

Frequency range: 87.50-108.00 MHz (0.05 MHz steps)
Antenna terminals: 75 Ω (unbalance)

■ AM tuner section

Frequency range: 522-1629 kHz (9 kHz steps)
520-1630 kHz (10 kHz steps)

■ System/SC-HD501:

Tuner: ST-HD501, Compact Disc Player: SL-HD501, Amplifier: SE-HD501, Cassette Deck: RS-HD501, Speakers: SB-HD501 (Made in PAES)

■ Timer section

Clock: Quartz-lock type

Function: Play timer: 1 time or everyday
Rec. timer: 1 time or everyday
Sleep timer: 120min. 30min. intervals

■ General

Dimensions(WxHxD): 196x 67x 235mm

Weight: 1.0kg

Power Supply: AC 3.5V, DC: -13V/+16V/+10V/+5.6V/-24V

Power Consumption: 15W

Notes:

1. Specifications are subject to change without notice.

2. Dimensions and weight are approximate.

1. Before Repair

This equipment (ST-HD501), which is a component of the system, is supplied with power from the amplifier (SE-HD501). When repairing this equipment or checking operation of the system, be sure to connect the amplifier with it.

Power supply and operation check in the state of it as a single equipment are impracticable.

2. Operating Instructions

3. About the Self-Diagnostic Mode

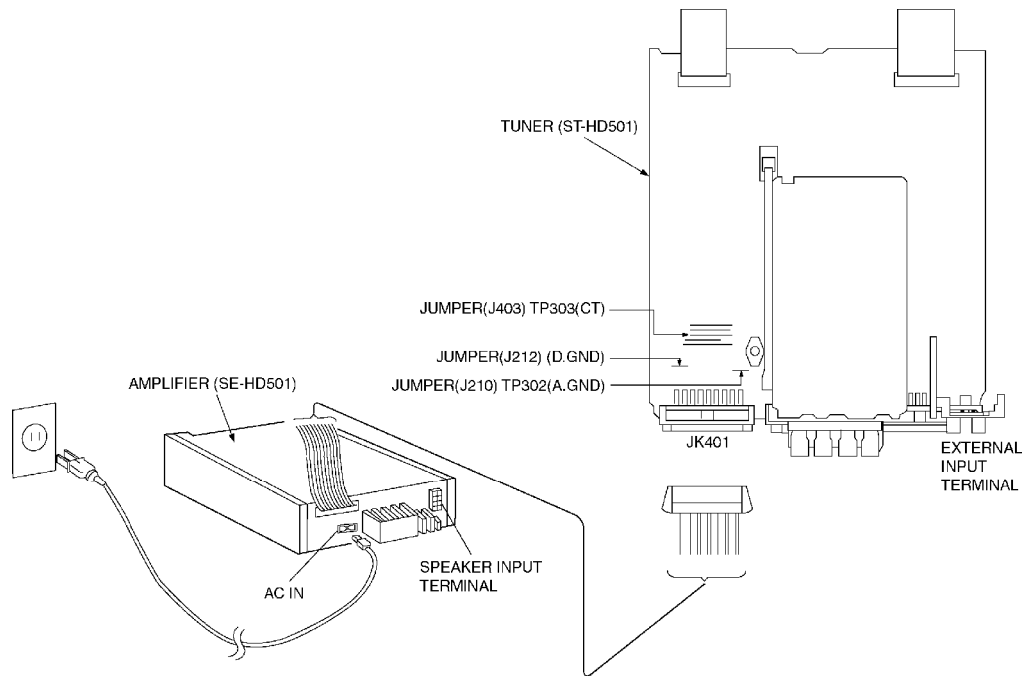
This unit is equipped with a self-diagnostic function which, in the event of a malfunction, automatically displays a code indicating the nature of the malfunctions. Use this self-diagnostic function when servicing the unit.

4. Power Source ON/OFF and Signal Check

To operate this unit ST-HD501 normally, it is necessary for connecting to the unit SE-HD501. When operating the unit ST-HD501, be sure to connect the unit SE-HD501 with included connection cable.

1. Short the section between the jumper (J210), TP302 (A.GND) and (J212)(D.GND), and as well as the section between the jumper (J403), TP303(CT) and (J212)(D.GND). (As shown in [Fig.1.](#))
2. Connect with the Amplifier (SE-HD501). (As shown in [Fig.1.](#))
3. Connect the AC mains lead to Amplifier (SE-HD501). (As shown in [Fig.1.](#))
4. Connect the speakers to speaker input terminal. (As shown in [Fig.1.](#))
5. Turn on the power of the Amplifier (SE-HD501).
6. Press INPUT SELECTOR to select the external source (EXT/MD) of the Amplifier (SE-HD501).
7. Input a sound signal to external input terminal of Tuner (ST-HD501), and confirm to be outputted from the speaker.

Fig.1

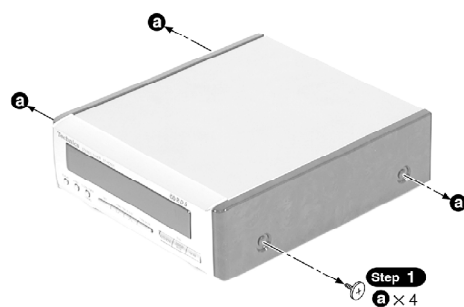


5. Operation Checks and Component Replacement Procedures

NOTE 1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.

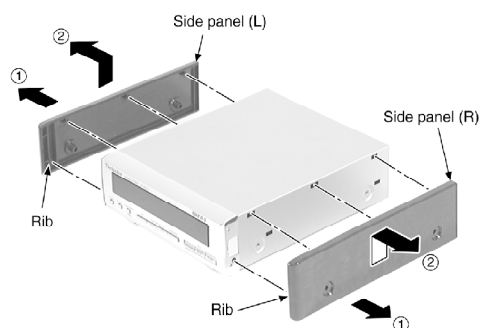
2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.

1. Checking for the tuner P.C.B. and FL P.C.B.



Step 2

Remove the side panel (L), (R).
(Spread the lower part of the side panels in the direction of arrow ① to release the ribs, and then lift to remove the side panels in the direction of arrow ②.)



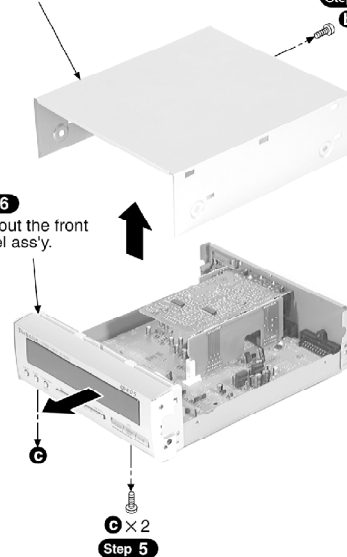
Step 4

Remove the cabinet.

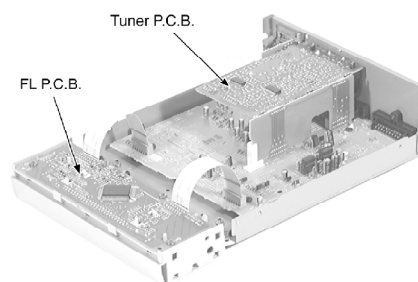
Step 3

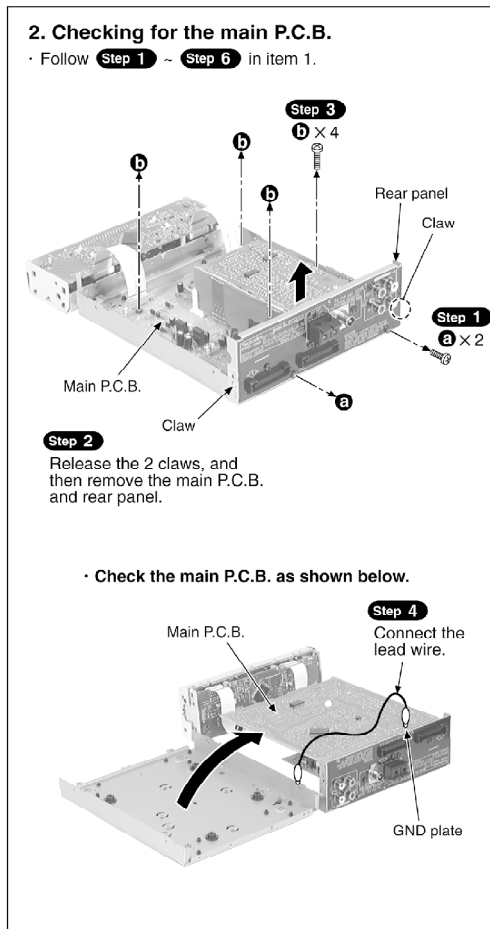
Step 6

Pull out the front panel ass'y.



• Check the tuner P.C.B. and FL P.C.B. as shown below.





6. Wiring Connection Diagram

7. Block Diagram

8. Schematic Diagram Notes

8.1. Schematic Diagram Notes

- This schematic diagram may be modified at any time with development of new technology.

Notes:

- S601: Band select (FM/AM) switch.
- S602: Display mode select (RDS DISPLAY MODE) switch.
- S603: FM mode select (AUTO/MONO) switch .
- S604: Tuning mode (TURN MODE) switch .
- S605: Tuning/time adjust () switch.
- S606: Tuning/time adjust () switch.
- S607: Set (SET) switch .
- S608: Clock/timer, demo (CLOCK/TIMER/-DEMO) switch .
- S609: Record timer ( REC) switch.
- S610: Play timer ( PLAY) switch.
- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester. /

No mark: FM mode

(): AM mode

Important safety notice:

Components identified by  mark have special characteristics important for safety.

Furthermore, special parts which have purpose of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

Caution!

IC and LSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

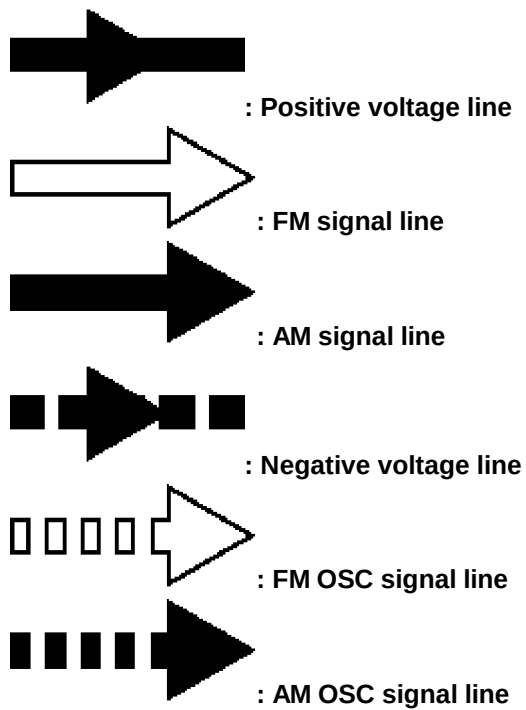
Cover the parts boxes made of plastics with aluminum foil.

Ground the soldering iron.

Put a conductive mat on the work table.

Do not touch the legs of IC or LSI with the fingers directly.

Voltage and signal line



8.2. Type Illustration of Transistors and Diodes

8.3. Diagram

9. Printed Circuit Board Diagram

10. Terminal Function of IC's

- IC302 (M62433AFP): DIGITAL SOUND CONTROL

Pin No.	Mark	I/O / Division	Function
1	PS-IN	O	R/L output terminal for surround
2	PS+IN	I	Phase shift filter input terminal for surround (Not used, open)
3	KIN1	O	Key control adaptor output terminal (Not used, open)
4	KOUT1	I	Key control adaptor input terminal / (Not used, connected to GND)
5	TAPEREC1	O	Rec signal output terminal from / surround mix amp. terminal
6	MDREC1	O	Select common output rec signal / output terminal
7	EXT OUT1		
8	DPL1	I	Tone signal input terminal (Not used, connected to GND)
9	F1F1	I	Resonance impedance connect / terminal (Not used, open)
10	F1O1	O	Resonance buffer amp output terminal / (Not used, open)
11	FIN1	I	Resonance buffer amp input terminal / (Not used, open)
12	F2F1	I	Resonance impedance connect / terminal
13	F2O1	O	Resonance buffer amp output terminal
14	F2IN1	I	Resonance buffer amp input terminal
15	F3F1	I	Resonance impedance connect / terminal
16	F3O1	O	Resonance buffer amp output terminal
17	F3IN1	I	Resonance buffer amp input terminal
18	F4F1	I	Resonance impedance connect / terminal
19	F4O1	O	Resonance buffer amp output terminal

Pin No.	Mark	I/O / Division	Function
20	F4IN1	I	Resonance buffer amp input terminal
21	F5F1	I	Band pass filter connect terminal / (Connected to GND through capacitor)
22	GEQOUT1	O	Tone signal output terminal
23	VOLIN1	I	R ladder volume input terminal
24	VOLOUT1	O	R ladder volume output terminal
25	BB1	—	Bass boost capacity connection / terminal(Not used, connected to GND)
26	BUFIN	I	Bass boost amp (+) input terminal
27	BUFNF1	I	Bass boost amp (-) input terminal
28	BUFOUT1	O	Bass boost amp output terminal
29	PORTA	O	Port A output terminal (Not used, open)
30	PORTB	O	Port B output terminal
31	DVDD	I	Power supply terminal
32	CLK	I	Clock input terminal for serial data transfer
33	DATA	I	Control data input terminal
34	LATCH	I	Latch signal input terminal
35	DGND	—	GND terminal
36	AVDD	I	Power supply terminal
37	BUFOUT2	O	Bass boost amp output terminal
38	BUFNF2	I	Bass boost amp (-) input terminal
39	BUFIN2	I	Bass boost amp (+) input terminal
40	BB2	I	Bass boost capacity connection / terminal(Not used, connected to GND)
41	VOLOUT2	O	R ladder volume output terminal
42	VOLIN2	I	R ladder volume input terminal
43	GEQOUT2	O	Tone signal output terminal

Pin No.	Mark	I/O / Division	Function
44	F5F2	I	Band pass filter connect terminal / (Connected to GND through capacitor)
45	F4IN2	I	Resonance buffer amp input terminal
46	F4O2	O	Resonance buffer amp output terminal
47	F4F2	I	Resonance impedance connect / terminal
48	F3IN2	I	Resonance buffer amp input terminal
49	F3O2	O	Resonance buffer amp output terminal
50	F3F2	I	Resonance impedance connect / terminal
51	F2IN2	I	Resonance buffer amp input terminal
52	F2O2	O	Resonance buffer amp output terminal
53	F2F2	I	Resonance impedance connect / terminal
54	F1IN2	I	Resonance buffer amp input terminal / (Not used, open)
55	F1O2	O	Resonance buffer amp output terminal / (Not used, open)
56	F1F2	I	Resonance impedance connect / terminal (Not used, open)
57	DPL2	I	Tone signal input terminal / (Not used, connected to GND)
58	EXT OUT2	O	Select common output rec signal / output terminal
59	MD REC2	O	
60	TAPE REC2	O	Rec signal output terminal from / surround mix amp. terminal
61	MIC IN	I	Mic signal input terminal / (Not used, connected to GND)

Pin No.	Mark	I/O / Division	Function
62	KOUT2	I	Key control adaptor input terminal / (Not used, connected to GND)
63	KIN2	O	Key control adaptor output terminal (Not used, open)
64	BPOUT	O	Band pass filter amp output terminal for vocal cancel
65	BPIN	I	Band pass filter amp input terminal for vocal cancel
66	CD	I	Input terminal for Rch
67	TUNER		
68	MD		
69	TAPE		
70	AUXH		
71	AUXL		
72	AVSS	O	Power supply terminal
73	AGND	—	GND terminal
74	AUXL	I	Input terminal for Lch
75	AUXH		
76	TAPE		
77	MD		
78	TAPE		
79	CD		
80	DELIN	I	R/L input terminal for surround

- IC701 (M30218MAA103): FL DRIVE/ SYSTEM CONTROL

Pin No.	Mark	I/O / Division	Function
1	P97/ CLKOUT	I/O	Communication clock velocity terminal / (“H”: nomal, “L”: CD-TEXT)
2	P96/DA1/ SCLK22	O	Clock output terminal for serial data transfer
3	P95/ SCLK21	I	CD & Tape communication clock input terminal
4	P94/ SOUT2	O	CD & Tape communication data output terminal
5	P93/SIN2	I	CD & Tape communication data input terminal
6	P92/ / SSTB2	I	CD & Tape communication response input terminal
7	P91/ / SBUSY2	O	CD communication request output / terminal
8	P90/ / SRDY2	O	Tape communication request output terminal
9	CNVss	—	GND terminal
10	P87/ XCIN	I	Crystal oscillator connection terminal / (f= 32kHz)
11	P86/ / XCOUT	O	
12	/RESET	I	Reset input terminal (“L”: Micon reset)
13	XOUT	O	Main clock ceramic oscillator output terminal (f= 10MHz)
14	VSS	—	GND teminal
15	XIN	I	Main clock ceramic oscillator input / terminal (f= 10MHz)
16	VCC	I	Power supply terminal
17	P85/INT5	I	Power failure detection input terminal
18	P84/INT4	I/O	CR timer terminal for watch backup
19	P83/INT3	O	Latch output terminal to IC302 (M62433AFP)
20	P82/INT2	I	Remote control data input terminal

Pin No.	Mark	I/O / Division	Function
21	P81/INT1	—	Connected to GND
22	P80/INT0		
23	P77/ TA4IN/ TA2OUT/ CLK1		
24	P76/ TA3IN/ TA1OUT/ CLK1		
25	P75/ TA2IN/ TA0OUT/ RXD1	I	
26	P74/ TA1IN/ YA4OUT/ TXD1	—	
27	P73/ TA0IN /TA3OUT	I	
28	P72/ TB2IN	—	

Pin No.	Mark	I/O / Division	Function
29	P71/ TB1IN	I	Tuner reception detect input terminal
30	P70/ TB0IN	O	Chip enable signal output terminal to IC501 (LC72722PMTLM)
31	P47/ CST0 /RST0	O	Chip enable signal output terminal to IC102 (LC72131MDTLM)
32	P46/ CXL0	O	Clock output terminal to IC501 (LC72722PMTLM)
33	P45/ RXD0	I	Stereo input terminal from IC102 (LC72131MDTLM)
34	P44/ TXD0	O	Data output terminal from IC102 (LC72131MDTLM)
35	P43/ FLD51	I	Tuner signal detection input terminal from IC101 (LA1833MN-TLM)
36	P42/ FLD50	I	Chip select input terminal
37 ~ 40	P41/ FLD49 / ~ / P36/ FLD46	I/O	FL segment control in/output terminal
41 ~ 54	P35/ FLD45 ~ P20/ FLD32	O	FL segment control output terminal
55 ~ 62	P17/ FLD31 ~ P10/ FLD24		
63	VCC		
64	P70/ FLD23	O	FL segment control output terminal
65	VSS	—	GND teminal
66 ~ 72	P06/ FLD22 ~ P00/ FLD16	O	FL segment control output terminal
73	P57/ FLD15	O	FL segment control output terminal

	FLD13		terminal
Pin No.	Mark	I/O / Division	Function
74 ~ 80	P56/ FLD14 ~ P50/ FLD8	O	FL grid control output terminal
81 ~ 86	P67/ FLD7 ~ P62/ FLD2	O	FL grid control output terminal
87	P61/ FLD1	O	FL grid control output terminal (Not used, open)
88	P60/ FLD0	O	FL grid control output terminal
89	VEE	I	Power supply terminal
90 ~ 92	P107/ AN7 ~ P105/ AN5	—	Connected to GND
93	P104/ AN4	O	Muting output terminal ("H": OFF, "L": ON)
94 ~ 96	P103/ AN3 ~ P101/ AN1	I	Amplifier input terminal
97	AVSS	—	Connected to GND
98	P100/ AN0	I	Key switch input terminal
99	VREF	I	Power supply terminal
100	AVCC		

11. Replacement Parts List

Note:

*Important safety notice:

Components identified by  mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

*The parenthesized indications in the Remarks columns specify the areas.

Parts without these indications can be used for all areas.

*Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)

*Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM), 1M=1,000k (OHM)

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
<u>1</u>	RHD30073-K	SCREW	4	
<u>2</u>	RKM0398-S	CABINET	1	
<u>3</u>	XTB3+8JFZ	SCREW	1	
<u>4</u>	REZ1120	FLAT CABLE(14P)	2	
<u>5</u>	RKA0076-N2	FOOT	4	
<u>5-1</u>	RKA0083-K	CUSHION	4	
<u>6</u>	XTB3+6G	SCREW	4	
<u>7</u>	RMN0195	FL HOLD PIECE	2	
<u>8</u>	RGK1138-N	SIDE ORNAMENT(L)	1	
<u>9</u>	RGK1139-N	SIDE ORNAMENT(R)	1	
<u>10</u>	RGU1394B-S	BUTTON	1	
<u>11</u>	XTBS26+8J	SCREW	9	
<u>12</u>	XTBS3+8JFZ1	SCREW	9	
<u>13</u>	XTB3+12JFZ	SCREW	4	
<u>14</u>	RFKGTHD501EN	FRONT PANEL ASS'Y	1	
<u>15</u>	RGK0817-1M	SIDE PANEL (L)	1	
<u>16</u>	RGK0818-1M	SIDE PANEL (R)	1	
C101	ECBT1C103NS5	16V 0.01U	1	
C102	ECEA1CKS101	16V 100U	1	
C103	ECBT1C103NS5	16V 0.01U	1	
C104,05	ECBT1H102KB5	50V 1000P	2	
C106	ECBT1C103NS5	16V 0.01U	1	
C107	ECBT1H473ZF5	50V 0.047U	1	
C108	ECBT1H8R2KC5	50V 8.2P	1	
C109	ECBT1H102KB5	50V 1000P	1	
C110	ECBT1C103NS5	16V 0.01U	1	
C111	ECEA1EKS4R7	25V 4.7U	1	
C112	ECBT1C103NS5	16V 0.01U	1	
C113	ECBT1H102KB5	50V 1000P	1	
C114	RCE1HKA3R3BG	50V 3.3U	1	
C115	ECEA1EKS4R7	25V 4.7U	1	
C116	ECFR1C333KR	16V 0.033U	1	
C117,18	ECFR1C183KR	16V 0.018U	2	
C119	ECQP1391JZ	100V 390P	1	
C120	RCE1CKA100BG	16V 10U	1	
C121	RCE1HKAR47BG	50V 0.47U	1	
C122,23	ECEA1HKS010	50V 1U	2	
C124	ECBT1H101KB5	50V 100P	1	
C125	ECEA1CKS220	16V 22U	1	
C126	ECBT1H473ZF5	50V 0.047U	1	
C127	ECEA1CKS220	16V 22U	1	
C129,30	ECEA0JKS101	6.3V 100U	2	
C131	ECBT1H101KB5	50V 100P	1	
C132	ECBT1H102KB5	50V 1000P	1	
C133,34	ECBT1H270JU5	50V 27P	2	
C136	ECBT1H102KB5	50V 1000P	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C137	ECFR1E472KR	25V 4700P	1	
C138	ECBT1C103KS5	16V 0.01U	1	
C139	ECFR1E472KR	25V 4700P	1	
C141,42	ECEA1HKS010	50V 1U	2	
C143,44	ECBT1C472KR5	16V 4700P	2	
C147	ECBT1H102KB5	50V 1000P	1	
C148	ECBT1C103NS5	16V 0.01U	1	
C149	ECBT1H104ZF5	50V 0.1U	1	
C201-06	ECBT1H101KB5	50V 100P	6	
C209	ECBT1H102KB5	50V 1000P	1	
C301,02	RCE1CKA100BG	16V 10U	2	
C303,04	ECBT1H330J5	50V 33P	2	
C305,06	ECBT1H102KB5	50V 1000P	2	
C307,08	ECBT1E103ZF	25V 0.01U	2	
C309-13	RCE1CKA100BG	16V 10U	5	
C314	ECBT1H104ZF5	50V 0.1U	1	
C315-17	ECBT1H470J5	50V 47P	3	
C318	ECBT1H104ZF5	50V 0.1U	1	
C321,22	ECBT1H471KB5	50V 470P	2	
C323,24	ECBT1H102KB5	50V 1000P	2	
C325,26	RCE1CKA100BG	16V 10U	2	
C327,28	ECBT1H331KB5	50V 330P	2	
C329,30	RCE1CKA100BG	16V 10U	2	
C331,32	ECBT1H331KB5	50V 330P	2	
C333,34	ECBT1C332KR5	16V 3300P	2	
C335-38	ECQB1H103JZ	50V 0.01U	4	
C339-42	ECQV1H473JM3	50V 0.047U	4	
C343,44	ECQV1H224JM3	50V 0.22U	2	
C345,46	ECQB1H333JF3	50V 0.033U	2	
C351	ECBT1H104ZF5	50V 0.1U	1	
C353-62	ECBT1H101KB5	50V 100P	10	
C401,02	ECA1EM101	25V 100U	2	
C403,04	ECBT1E103ZF	25V 0.01U	2	
C405,06	RCE1AKA470BG	10V 47U	2	
C407,08	ECEA1CKS101	16V 100U	2	
C409,10	ECBT1E103ZF	25V 0.01U	2	
C411	ECEA1CKS101	16V 100U	1	
C413	ECA1EM101	25V 100U	1	
C414	ECEA0JKS101	6.3V 100U	1	
C415	ECBT1E103ZF	25V 0.01U	1	
C471,72	ECBT1H473ZF5	50V 0.01U	2	
C481	ECBT1C105ZF5	16V 1U	1	
C482	ECBT1H104ZF5	50V 0.1U	1	
C483,84	ECBT1H473ZF5	50V 0.01U	2	
C491,92	ECBT1H101KB5	50V 100P	2	
C493	ECEA1VKS470	35V 47U	1	
C501	ECEA0JKS101	6.3V 100U	1	
C502	ECBT1E103ZF	25V 0.01U	1	
C503,04	ECBT1H470J5	50V 47P	2	
C505	ECBT1H561KB5	50V 560P	1	
C506	ECBT1E103ZF	25V 0.01U	1	
C507	ECEA0JKS101	6.3V 100U	1	
C508	ECBT1H331KB5	50V 330P	1	
C509	RCE1CKA100BG	16V 10U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C541	RCE1HKA3R3BG	50V 3.3U	1	
C601	ECUV1E103ZFN	25V 0.01U	1	
C702	ECUV1H180JCN	50V 18P	1	
C703	ECUV1H200JCN	50V 20P	1	
C704	ECEA1HKS2R2	50V 2.2U	1	
C705,06	ECUV1E104ZFN	25V 0.1U	2	
C707	RCE0JRC102BG	6.3V 1000U	1	
C708	ECUV1E103ZFN	25V 0.01U	1	
C709	RCE1CKA100BG	16V 10U	1	
C710	ECUV1E103ZFN	25V 0.01U	1	
C711,12	ECUV1E104ZFN	25V 0.1U	2	
C713	ECEA1HKS100	50V 10U	1	
C715,16	ECUV1E104ZFN	25V 0.1U	2	
C717,18	ECUV1E103ZFN	25V 0.01U	2	
C781,82	ECEA1HKS010	50V 1U	2	
C792	ECEA0JKS101	6.3V 100U	1	
CF201	RLFFETNGD01L	CERAMIC FILTER	1	
CF202	RLFFETMGD01L	CERAMIC FILTER	1	
CN101A	RJT100W07	CONNECTOR(7P)	1	
CN101B	RJU100W07	CONNECTOR(7P)	1	
CN102A	RJT100W07	CONNECTOR(7P)	1	
CN102B	RJU100W07	CONNECTOR(7P)	1	
CN103A	RJT057W007-1	CONNECTOR(7P)	1	
CN103B	RJU057W007	CONNECTOR(7P)	1	
CN104A	RJT057W007-1	CONNECTOR(7P)	1	
CN104B	RJU057W007	CONNECTOR(7P)	1	
CN105A	RJT057W007-1	CONNECTOR(7P)	1	
CN105B	RJU057W007	CONNECTOR(7P)	1	
CN701A	RJS1A6814	CONNECTOR(14P)	1	
CN701B	RJS1A6214-1	CONNECTOR(14P)	1	
CN702A	RJS1A6814	CONNECTOR(14P)	1	
CN702B	RJS1A6214-1	CONNECTOR(14P)	1	
CN703A	RJT066H05A	CONNECTOR(5P)	1	
CN703B	RJU066H05	CONNECTOR(5P)	1	
D101 	MA4051M	D10DE	1	
D301 	MA4051M	D10DE	1	
D401,02 	MA4075HTA	D10DE	2	
D403 	MA4082LTA	D10DE	1	
D404	MA185TA	DIODE	1	
D481-84	MA719TA	DIODE	4	
D491	MA4043M	DIODE	1	
D492	MA4051M	DIODE	1	
D541,42	MA165	DIODE	2	
D701	MA111TX	DIODE	1	
D703,04	1SS380TE-17	DIODE	2	
D705	MA111TX	DIODE	1	
D706	1SS380TE-17	DIODE	1	

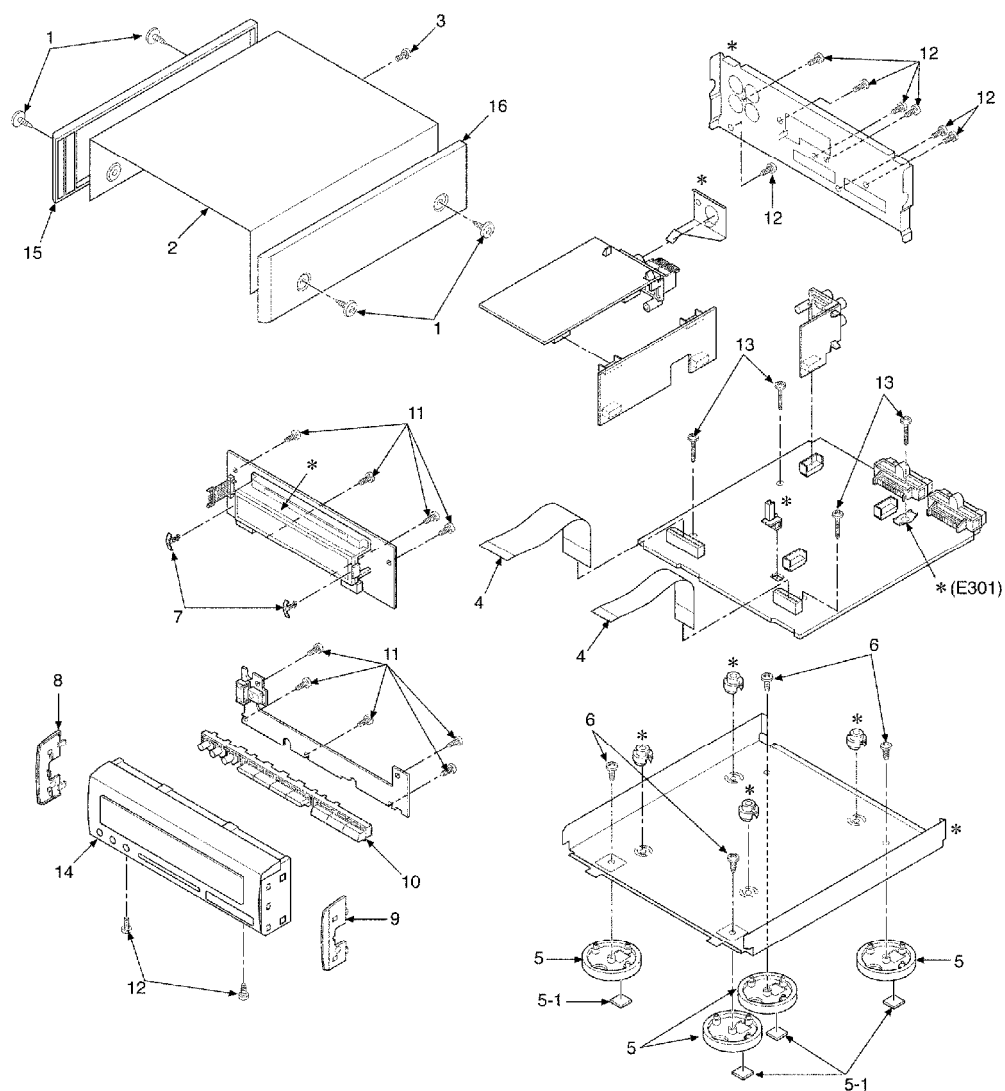
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D711	MA111TX	DIODE	1	
D713,14	MA111TX	DIODE	2	
FL701	RSL0273-F	FL	1	
IC101	LA1833MN-TLM	IC	1	
IC102	LC72131MDTLM	IC	1	
IC301	M5218AFPE3	IC	1	
IC302	M62433AFP	IC	1	
IC501	LC72722PMTLM	IC	1	
IC701	M30218MAA103	IC	1	
JK101	RJH5210M	JACK ANTENNA	1	
JK201	SJF3069-20N	EXT/MD	1	
JK401	RJT065K20	SYSTEM CONNECTOR(20P)	1	
JK402	RJT065K19	SYSTEM CONNECTOR(19P)	1	
L101,02	ELESNR68MA	COIL	2	
L103	ELEXTR47MA9	COIL	1	
L501,02	RLQA100JT-Y	COIL	2	
L541,42	RLQA100JT-Y	COIL	2	
L701	RLBN300AV-W	COIL	1	
L702-04	RLBN601V-W	COIL	3	
L706	RLBN601V-W	COIL	1	
L707	RLBN300AV-W	COIL	1	
Q101,02	2SC2787FK	TRANSISTOR	2	
Q106	UN4111	TRANSISTOR	1	
Q110	2SC3311AR	TRANSISTOR	1	
Q301,02	2SC3311ATA	TRANSISTOR	2	
Q303	UN4115	TRANSISTOR	1	
Q401 	2SD2137PQTA	TRANSISTOR	1	
Q402 	2SB1417PQTA	TRANSISTOR	1	
Q403 	2SC3940AQSTA	TRANSISTOR	1	
Q405	DTB123YSTP	TRANSISTOR	1	
Q406	DTC114ESTP	TRANSISTOR	1	
Q407	2SC3311ATA	TRANSISTOR	1	
Q541,42	2SC3311ATA	TRANSISTOR	2	
Q543	DTC143XSTP	TRANSISTOR	1	
Q701	UN5214TX	TRANSISTOR	1	
Q702	2SD1819ATX	TRANSISTOR	1	
R102	ERDS2FJ472	1/4W 4.7K	1	
R103	ERDS2FJ101	1/4W 100	1	
R104	ERDS2FJ103	1/4W 10K	1	
R105	ERDS2FJ471	1/4W 470	1	
R106	ERDS2FJ474	1/4W 470K	1	
R107	ERDS2FJ331	1/4W 330	1	
R108	ERDS2FJ474	1/4W 470K	1	
R109	ERDS2FJ331	1/4W 330	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R110	ERDS2FJ102	1/4W 1K	1	
R111	ERDS2FJ391	1/4W 390	1	
R112	ERDS2FJ104	1/4W 100K	1	
R113	ERDS2FJ103	1/4W 10K	1	
R114	ERDS2FJ562	1/4W 5.6K	1	
R115	ERDS2FJ561	1/4W 560	1	
R116	ERDS2FJ102	1/4W 1K	1	
R117	ERDS2FJ683	1/4W 68K	1	
R118	ERDS2FJ332	1/4W 3.3K	1	
R119	ERDS2FJ103	1/4W 10K	1	
R120	ERDS2FJ473	1/4W 47K	1	
R121	ERDS2FJ223	1/4W 22K	1	
R122	ERDS2FJ272	1/4W 2.7K	1	
R123	ERDS2FJ683	1/4W 68K	1	
R124	ERDS2FJ271	1/4W 270	1	
R125,26	ERDS2FJ152	1/4W 1.5K	2	
R127	ERDS2FJ471	1/4W 470	1	
R128	ERDS2FJ820	1/4W 82	1	
R129	ERDS2FJ273	1/4W 27K	1	
R130	ERDS2FJ103	1/4W 10K	1	
R131	ERDS2FJ680	1/4W 68	1	
R132	ERDS2FJ103	1/4W 10K	1	
R133-37	ERDS2FJ102	1/4W 1K	5	
R138	ERDS2FJ103	1/4W 10K	1	
R139	ERDS2FJ332	1/4W 3.3K	1	
R140	ERDS2FJ472	1/4W 4.7K	1	
R141,42	ERDS2FJ102	1/4W 1K	2	
R143	ERDS2FJ223	1/4W 22K	1	
R145,46	ERDS2FJ104	1/4W 100K	2	
R201,02	ERDS2FJ102	1/4W 1K	2	
R203,04	ERDS2FJ104	1/4W 100K	2	
R205,06	ERDS2FJ102	1/4W 1K	2	
R207,08	ERDS2FJ104	1/4W 100K	2	
R301-04	ERDS2FJ471	1/4W 470	4	
R305,06	ERDS2FJ473	1/4W 47K	2	
R307,08	ERDS2FJ103	1/4W 10K	2	
R309,10	ERD16TJ000T	1/4W 0	2	
R313,14	ERDS2FJ102	1/4W 1K	2	
R315,16	ERDS2FJ223	1/4W 22K	2	
R317,18	ERDS2FJ102	1/4W 1K	2	
R319,20	ERDS2FJ332	1/4W 3.3K	2	
R321	ERDS2FJ105	1/4W 1M	1	
R322	ERDS2FJ104	1/4W 100K	1	
R323	ERDS2FJ102	1/4W 1K	1	
R324	ERDS2FJ222	1/4W 2.2K	1	
R325	ERDS2FJ102	1/4W 1K	1	
R326	ERDS2FJ103	1/4W 10K	1	
R329-32	ERDS2FJ472	1/4W 4.7K	4	
R333,34	ERDS2FJ332	1/4W 3.3K	2	
R335,36	ERDS2FJ104	1/4W 100K	2	
R337,38	ERDS2FJ223	1/4W 22K	2	
R339,40	ERDS2FJ103	1/4W 10K	2	
R341,42	ERDS2FJ102	1/4W 1K	2	
R343,44	ERDS2FJ103	1/4W 10K	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R345,46	ERDS2FJ102	1/4W 1K	2	
R347,48	ERDS2FJ103	1/4W 10K	2	
R349,50	ERDS2FJ272	1/4W 2.7K	2	
R351,52	ERDS2FJ822	1/4W 8.2K	2	
R353,54	ERDS2FJ222	1/4W 2.2K	2	
R355,56	ERDS2FJ103	1/4W 10K	2	
R357,58	ERDS2FJ102	1/4W 1K	2	
R359,60	ERDS2FJ103	1/4W 10K	2	
R361,62	ERDS2FJ472	1/4W 4.7K	2	
R363,64	ERDS2FJ103	1/4W 10K	2	
R401,02 	ERD2FCJ4R	1/4W 4.7	2	
R403,04	ERDS2FJ102	1/4W 1K	2	
R405 	ERD2FCG100	1/4W 10	1	
R406	ERDS2FJ102	1/4W 1K	1	
R407	ERDS2FJ221	1/4W 220	1	
R408-11	ERDS2FJ102	1/4W 1K	4	
R481,82	ERDS2FJ101	1/4W 100	2	
R491,92	ERDS2FJ151	1/4W 150	2	
R493	ERDS2FJ103	1/4W 10K	1	
R501-04	ERDS2FJ102	1/4W 1K	4	
R505	ERDS2FJ332	1/4W 3.3K	1	
R507	ERDS2FJ101	1/4W 100	1	
R509	ERDS2FJ101	1/4W 100	1	
R530	ERDS2FJ473	1/4W 47K	1	
R541	ERDS2FJ473	1/4W 47K	1	
R542,43	ERDS2FJ472	1/4W 4.7K	2	
R544	ERDS2FJ223	1/4W 22K	1	
R545-47	ERDS2FJ103	1/4W 10K	3	
R548	ERDS2FJ331	1/4W 330	1	
R549,50	ERDS2FJ103	1/4W 10K	2	
R551,52	ERDS2FJ102	1/4W 1K	2	
R601	ERJ6GEYJ682V	1/10W 6.8K	1	
R602	ERJ6GEYJ472V	1/10W 4.7K	1	
R603	ERJ6GEYJ332V	1/10W 3.3K	1	
R604	ERJ6GEYJ222V	1/10W 2.2K	1	
R605	ERJ6GEYJ182V	1/10W 1.8K	1	
R606	ERJ6GEYJ152V	1/10W 1.5K	1	
R607	ERJ6GEYJ122V	1/10W 1.2K	1	
R608	ERJ6GEYJ102Z	1/10W 1K	1	
R609	ERJ6GEYJ821V	1/10W 820	1	
R701	ERJ6GEYJ102Z	1/10W 1K	1	
R702	ERJ6GEYJ103V	1/10W 10K	1	
R703	ERJ6GEYJ104V	1/10W 100K	1	
R704	ERJ6GEY0R00	1/10W 0	1	
R706	ERJ6GEYJ102Z	1/10W 1K	1	
R708	ERJ6GEYJ824V	1/10W 820K	1	
R709,10	ERJ6GEYJ102Z	1/10W 1K	2	
R721	ERJ6GEYJ153V	1/10W 15K	1	
R722-24	ERJ6GEYJ102Z	1/10W 1K	3	
R725	ERJ6GEYJ101V	1/10W 100	1	
R726,27	ERJ6GEYJ331V	1/10W 330	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks

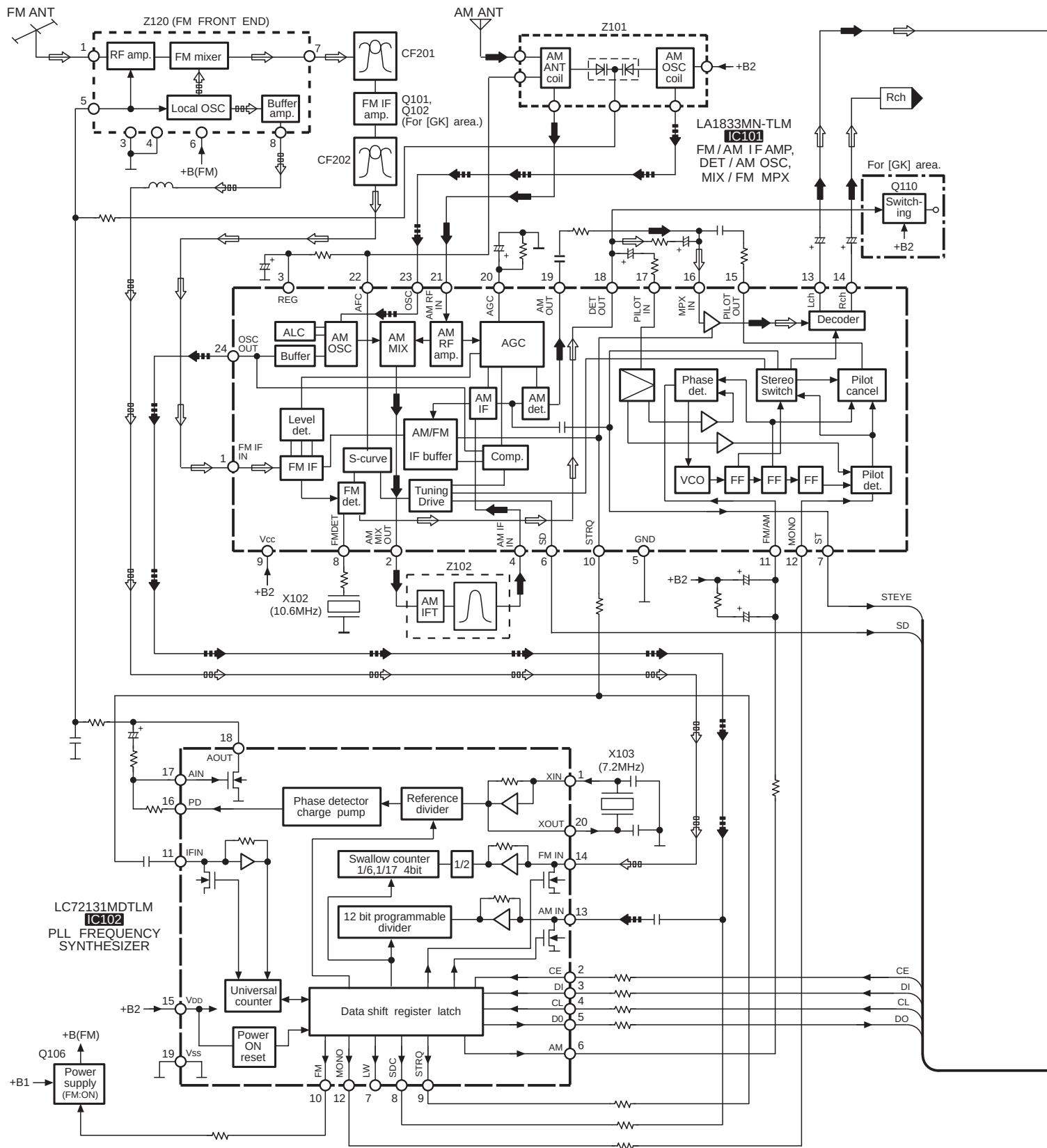
12. Cabinet Parts Location

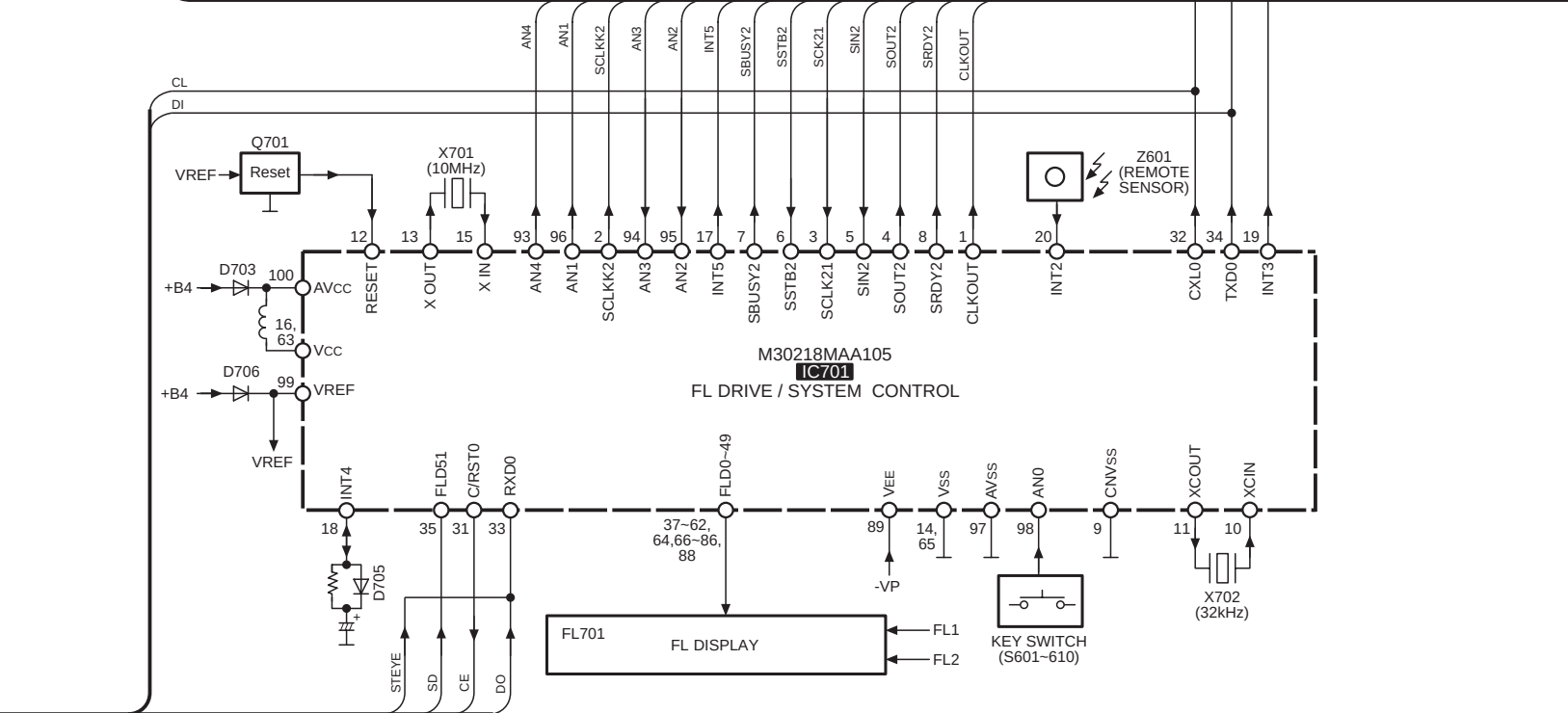
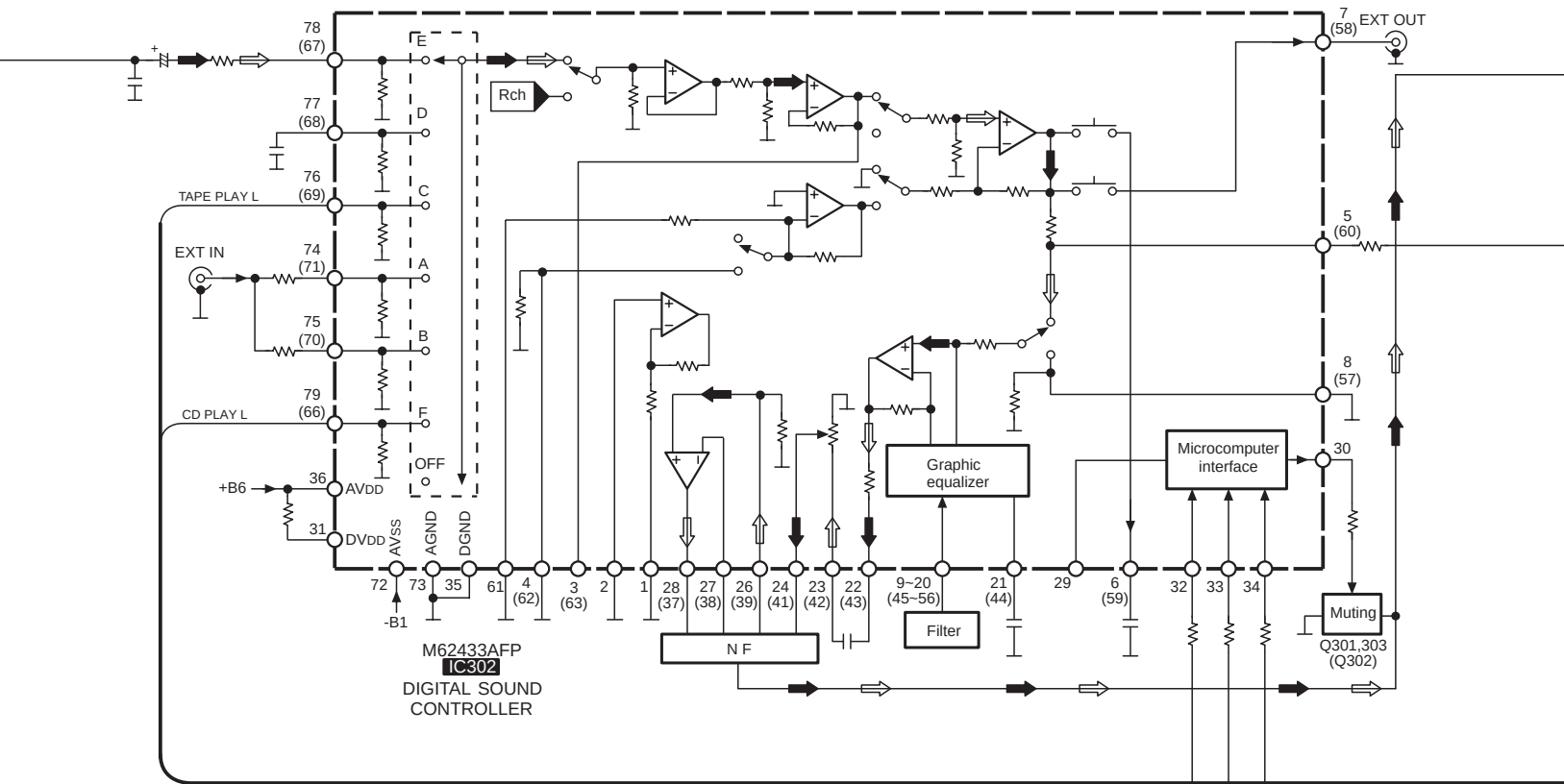


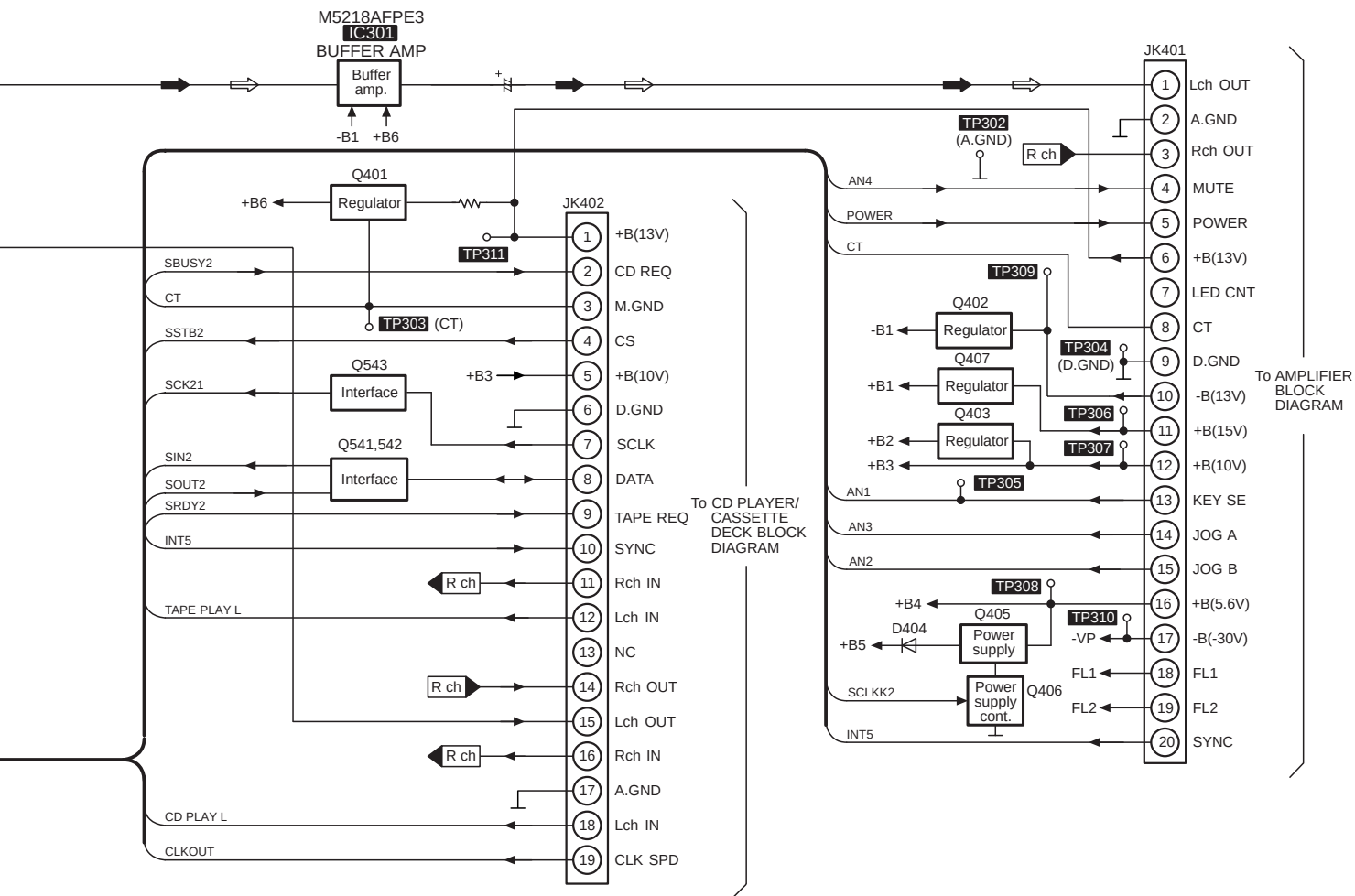
Note: We do not supply those items of parts marked *.

Ref. No.	Part No.	Part Name & Description	PCS	Remarks
1	RHD30073-K	SCREW	4	
2	RKM0398-S	CABINET	1	
3	XTB3+8JFZ	SCREW	1	
4	REZ1120	FLAT CABLE(14P)	2	
5	RKA0076-N2	FOOT	4	
5-1	RKA0083-K	CUSHION	4	
6	XTB3+6G	SCREW	4	
7	RMN0195	FL HOLD PIECE	2	
8	RGK1138-N	SIDE ORNAMENT(L)	1	
9	RGK1139-N	SIDE ORNAMENT(R)	1	
10	RGU1394B-S	BUTTON	1	
11	XTBS26+8J	SCREW	9	
12	XTBS3+8JFZ1	SCREW	9	
13	XTB3+12JFZ	SCREW	4	
14	RFKGTHD501EN	FRONT PANEL ASS'Y	1	
15	RGK0817-1M	SIDE PANEL (L)	1	
16	RGK0818-1M	SIDE PANEL (R)	1	

Printed in Japan(H990205100KK/HH)





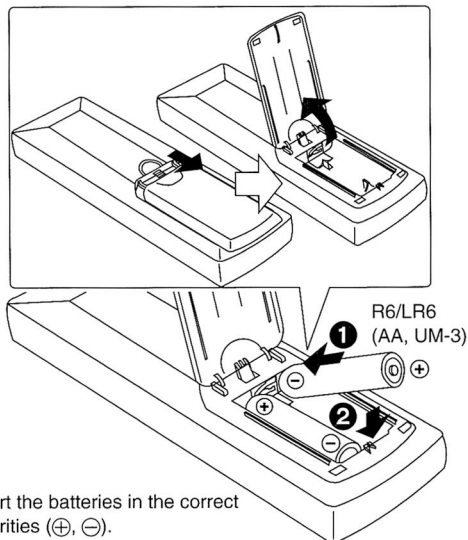


Notes)

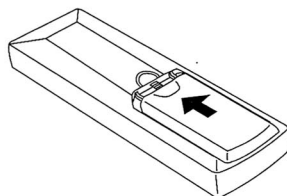
- Signal line
- ⇒ : FM signal
- ⇒ : AM signal
- ⇒ : FM OSC signal
- ⇒ : AM OSC signal
- () indicates pin No. of right channel.

Preparing the remote control

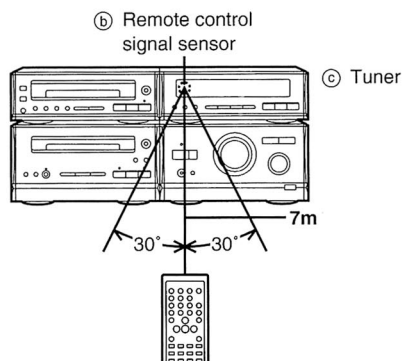
A



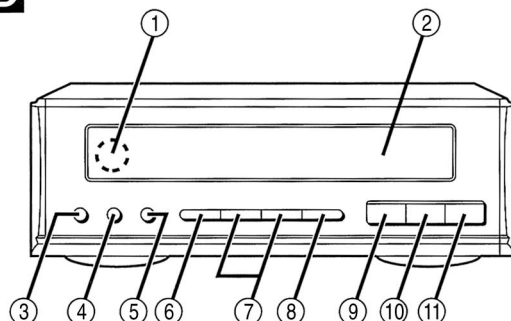
B



C



D



Battery installation

- Align the poles (+ and -) properly when inserting the batteries.
- Do not mix old and new batteries or different types of batteries.
- Do not recharge ordinary dry cell batteries.
- Do not heat or disassemble the batteries. Do not allow them to contact flame or water.
- Remove the batteries if the unit is not to be used for a long time.
- Do not keep together with metallic objects such as necklaces.
- Do not use rechargeable type batteries.

Mishandling of batteries can cause electrolyte leakage which can damage items the fluid contacts and may cause a fire. If electrolyte leaks from the batteries, consult your dealer. Wash thoroughly with water if electrolyte comes in contact with any part of your body.

The batteries should be replaced if commands from the remote control transmitter do not operate the unit even when the transmitter is held close to the front panel.

If the battery lid comes loose

Slide the lid back into place horizontally.

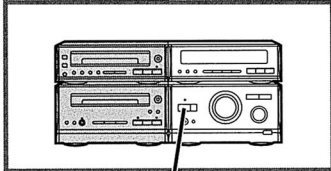
Correct method of use

- Aim the remote control's transmission window toward the unit's sensor. Avoid any obstacles.
- The maximum distance is within 7 meters directly facing toward the remote control signal sensor.
- Be sure the transmission window and the unit's sensor are free from dust. Excessive dust might affect its performance.
- The operation may not be correct if direct sunlight or other strong light source strikes the receiving sensor of this unit. If there is a problem, place the unit away from the light source.
- If this system is installed in a rack with glass doors, the glass doors' thickness or color might make it necessary to use the remote control a shorter distance from the system.
- Never place heavy items on the unit.
- Do not disassemble or reconstruct on the unit.
- Do not spill water or other liquids onto the unit.

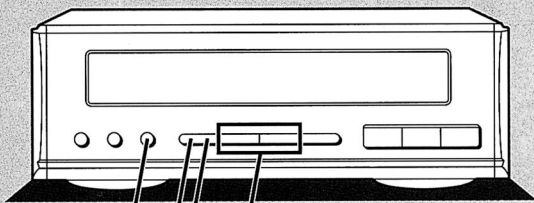
Front panel controls

Tuner section

- 1 Remote control signal sensor
- 2 Display panel
The display shows information for the cassette deck, CD player, and amplifier as well.
- 3 Play timer button (PLAY)
- 4 Record timer button (REC)
- 5 Clock/timer, demo button (CLOCK/TIMER, -DEMO)
- 6 Set button (SET)
- 7 Tuning/time adjust buttons (V, ^ TUNE/TIME ADJUST)
- 8 Tuning mode button (TUNE MODE)
- 9 FM mode select button (AUTO/MONO)
- 10 FM band select button (FM)
- 11 AM band select button (AM)



1



2

3, 4

1

2

①

CLOCK

②

CLOCK

3

①

SUN

②

WED

4

①

WED 0:01

②

WED 16:25

Setting the time

This is a 24-hour display clock.

These instructions explain how to set the clock for 16:25 on Wednesday.

1 Press [⏻/I] to turn the unit on.

2 ① Press [CLOCK/TIMER, -DEMO] to show "CLOCK".

Every time you press the button;
CLOCK → ⏻ PLAY → ⏻ REC → Previous display

② Within 7 seconds:
Press [SET].

3 ① Press [TUNE/TIME ADJUST (∨ or ∧)] to set the day.

Every time you press one of the buttons;
SUN ↔ MON ↔ TUE ↔ WED ↔ THU ↔ FRI ↔ SAT

② Press [SET].

4 ① Press [TUNE/TIME ADJUST (∨ or ∧)] to set the present time.

② Press [SET].

The time is now set and the panel will return to the previous display.

Displaying the clock

When the system is off

When ECO mode is off;

The clock is displayed constantly.

When ECO mode is on;

Press [CLOCK/TIMER, -DEMO].

The clock is displayed for about 5 seconds and then the display goes blank again.

When the system is on

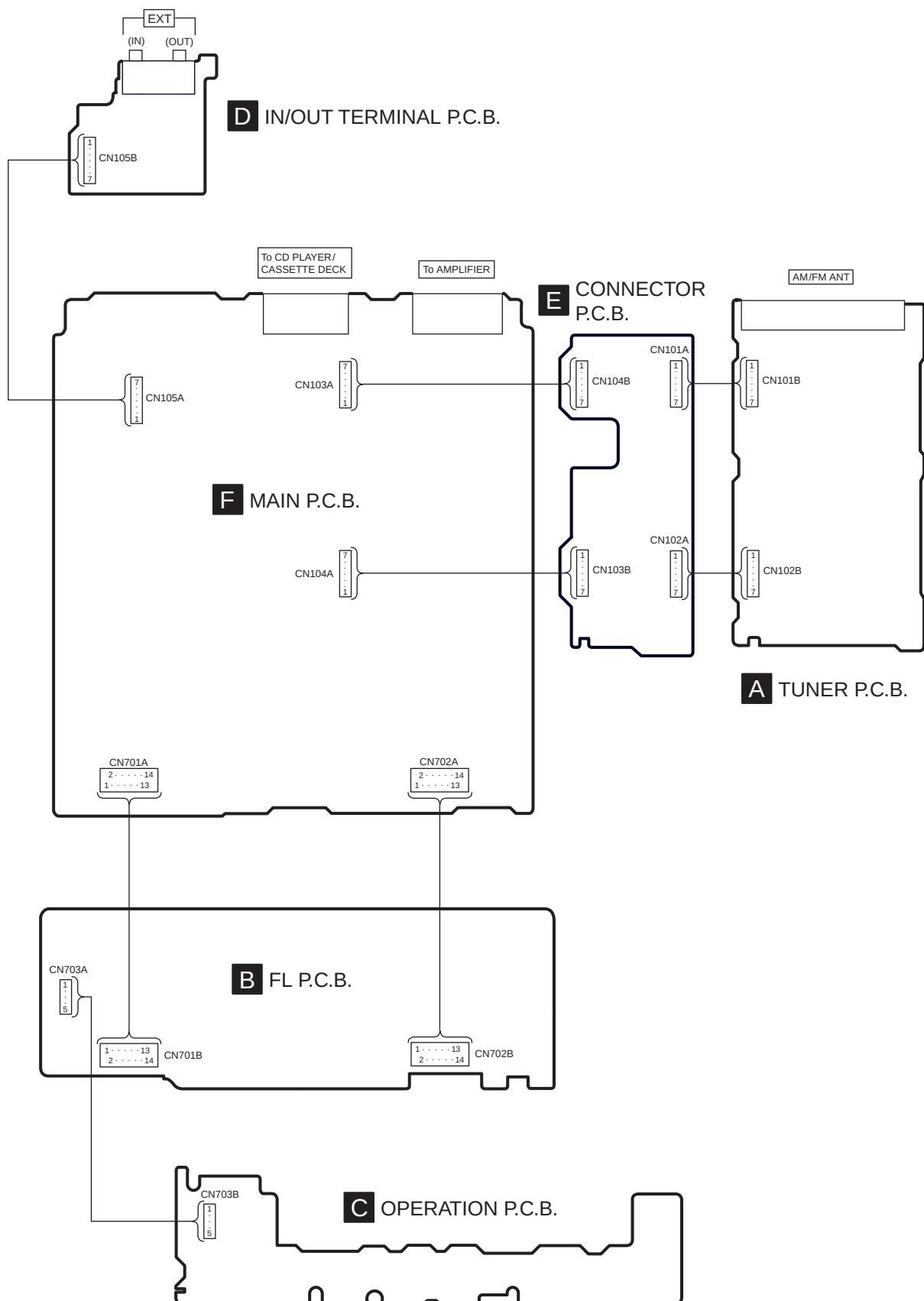
Press [CLOCK/TIMER, -DEMO].

The clock display will appear for about 5 seconds.

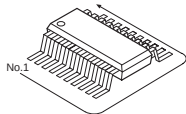
Display method	Display location
To display the malfunction code U70 CD: Automatically displays on the tuner when a malfunction occurs. F61 Automatically displays on the tuner when a malfunction occurs. To return to the normal display 1. For U70 CD: - Press an any operation button on the tuner. - To re-display the code, switch the power off (POWER STANDBY button), and then switch power back on again. 2. For F61: - If "F61" is displayed, the power will automatically be switched off. "F61" will be displayed for 3 seconds, and then the clock will be displayed. - To re-display the code, switch the power on. "F61" will be re-displayed, and then after 3 seconds the clock will be displayed and the power will automatically switch off.	

Display contents

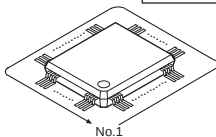
Display code	Problem or condition	Correction procedure
U70 CD (displayed automatically)	A bus-line communications error has occurred as a result of the flat cables being inserted incorrectly, thus preventing the system from operating. 1. If "U70CD" is displayed on the tuner, CD player cannot be operated by remote control.	1. To check for correct insertion of the flat cables - Match each connector with the color (black/ white) of the connection port and insert until you hear a click. - Insert the flat cables at the back of the unit in the order indicated. Make sure the white side of the cable is on your right side. 2. Breakage of flat cable (Check and replace as necessary.) 3. If the problem is not corrected by items (1.) and (2.) above, this indicates a faulty IC. ST-HD501V: IC701 (M30218MAA103) U70CD SL-HD501V: IC403 (LC66358C4K97) Check these IC's and replace as necessary.
F61	When the power switch is switched on, it automatically switches back off, making it impossible to switch power on.	Faulty amplifier (SE-HD501V) output IC (IC501 or 502). (When a DC voltage is applied to the speaker terminals.)



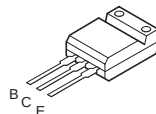
M5218AFPE3	8PIN
LA1833MN-TLM	24PIN
LC72131MDTLM	20PIN



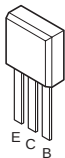
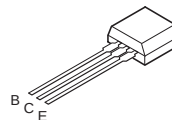
M62433AFP	80PIN
M30218MAA105	100PIN



2SB1417PQTA
2SD2137PQTA

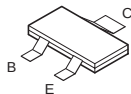


DTB123YSTP
DTC114ESTP
DTC143XSTP

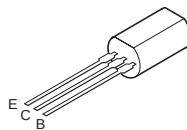


2SC2787LTA
2SC3311ATA
2SC3311ARSTA
UN4111TA
UN4115TA

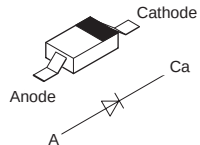
2SD1819ATX
UN5214TX



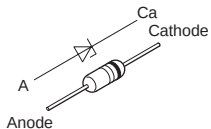
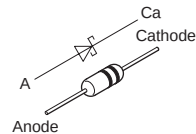
2SC3940AQSTA



MA111TX
1SS380TE-17

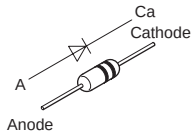


MA719TA

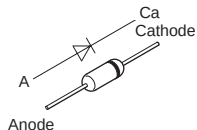


MA4043MTA
MA4051MTA
MA4075HTA
MA4082LTA

MA185TA



MA165TA



SCHEMATIC DIAGRAM 1

NOTE:

The number which noted at the connectors on the schematic diagram as "SCHEMATIC DIAGRAM-1" or "SCHEMATIC DIAGRAM-2" indicates the schematic diagram serial number located on the left corner in the schematic diagram.

A TUNER CIRCUIT For [GC] area.

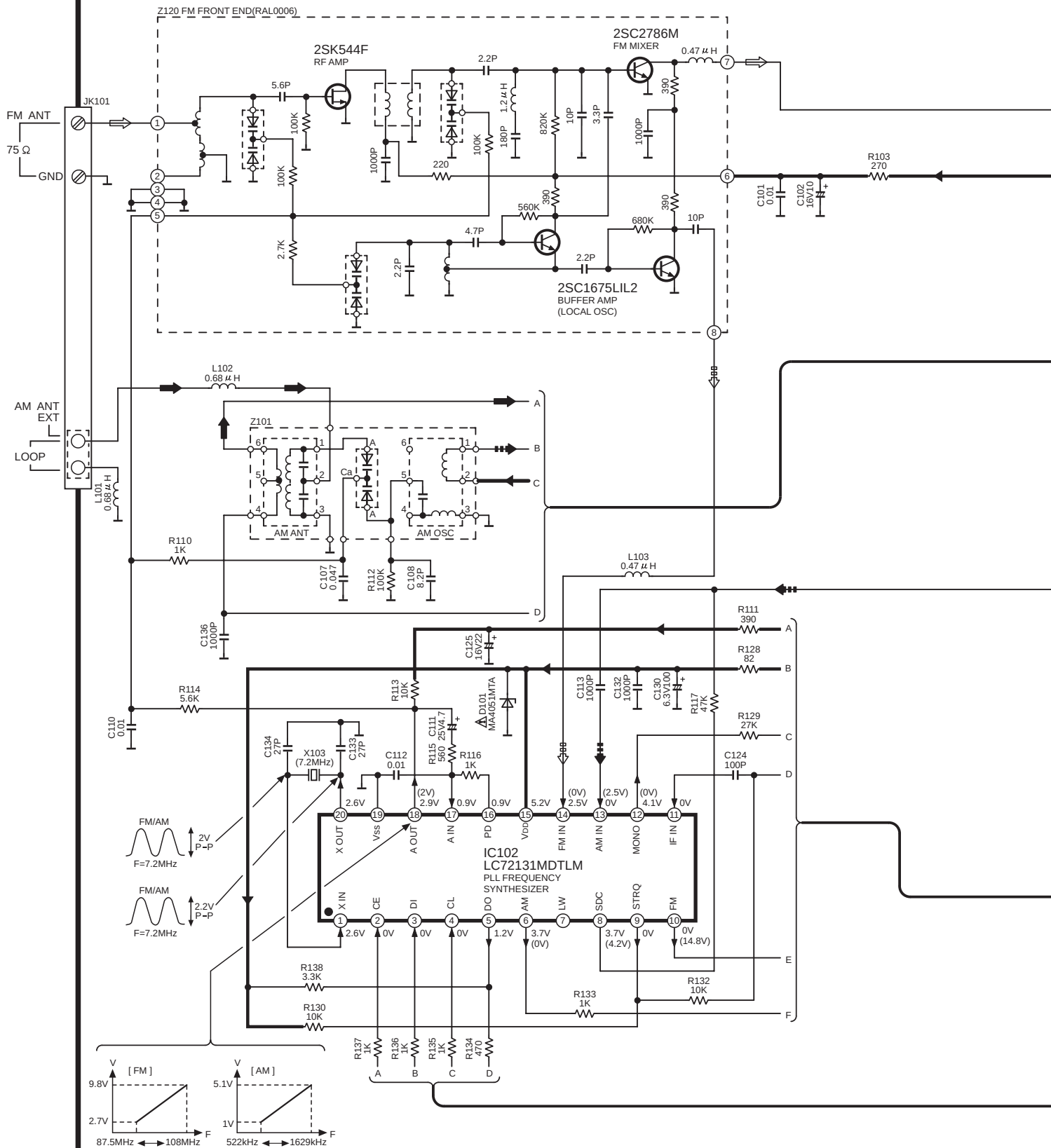
⇨ : FM SIGNAL LINE

➡ : AM SIGNAL LINE

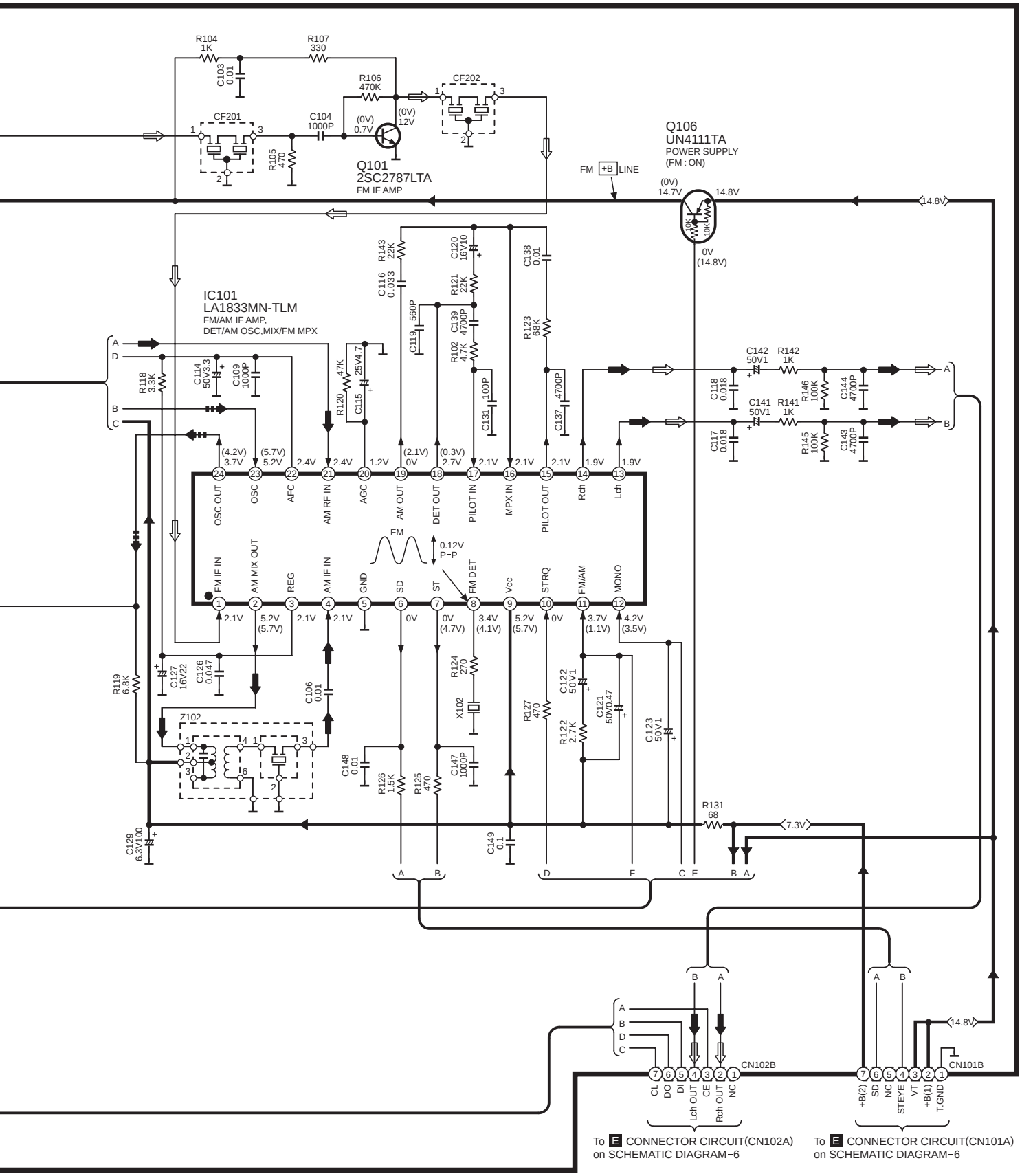
➡ : POSITIVE VOLTAGE LINE

⇨ : FM OSC SIGNAL LINE

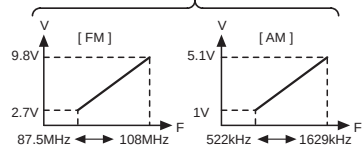
➡ : AM OSC SIGNAL LINE



 : POSITIVE VOLTAGE LINE
  : AM SIGNAL LINE
 : FM SIGNAL LINE
  : AM OSC SIGNAL LINE



To **E** CONNECTOR CIRCUIT(CN102A) on SCHEMATIC DIAGRAM-6
 To **E** CONNECTOR CIRCUIT(CN101A) on SCHEMATIC DIAGRAM-6



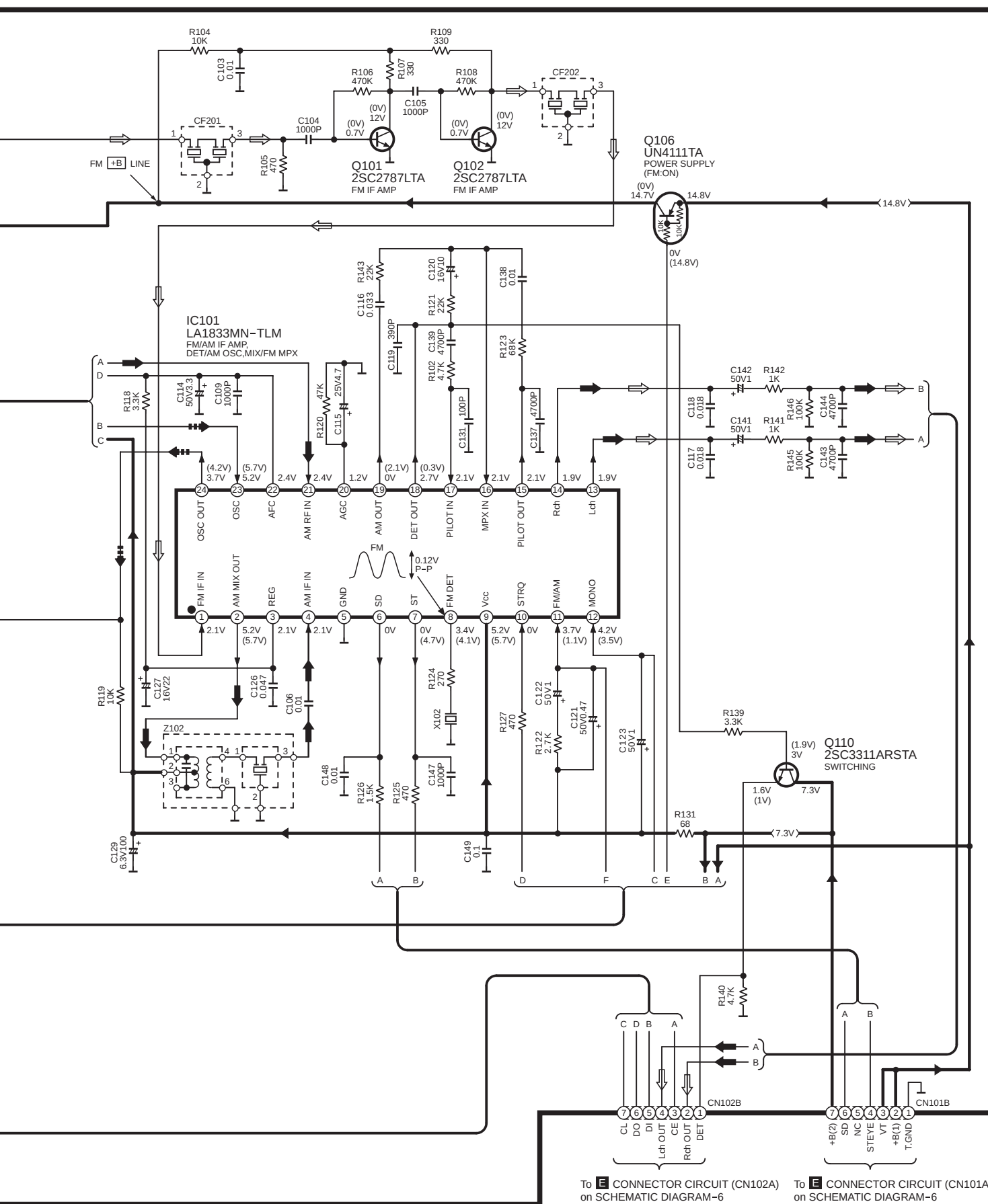
SCHEMATIC DIAGRAM-4

:POSITIVE VOLTAGE LINE

⇒ :FM SIGNAL LINE

➡ :AM SIGNAL LINE

:AM OSC SIGNAL LINE

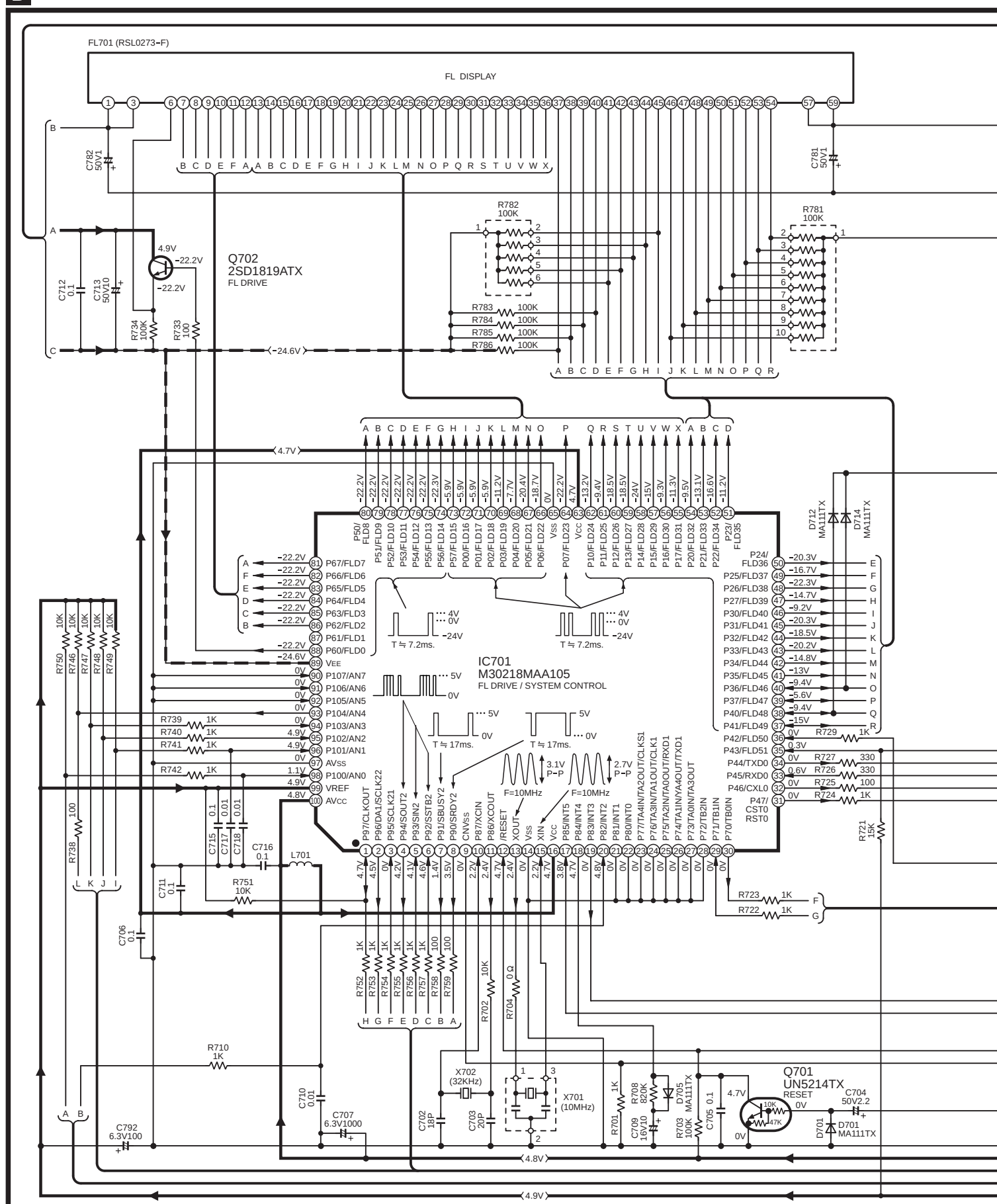


To **E** CONNECTOR CIRCUIT on SCHEMATIC DIAGRAM-6

To **E** CONNECTOR CIRCUIT (CN101A)
on SCHEMATIC DIAGRAM-6

B FL CIRCUIT

- :NEGATIVE VOLTAGE LINE



SCHEMATIC DIAGRAM-7

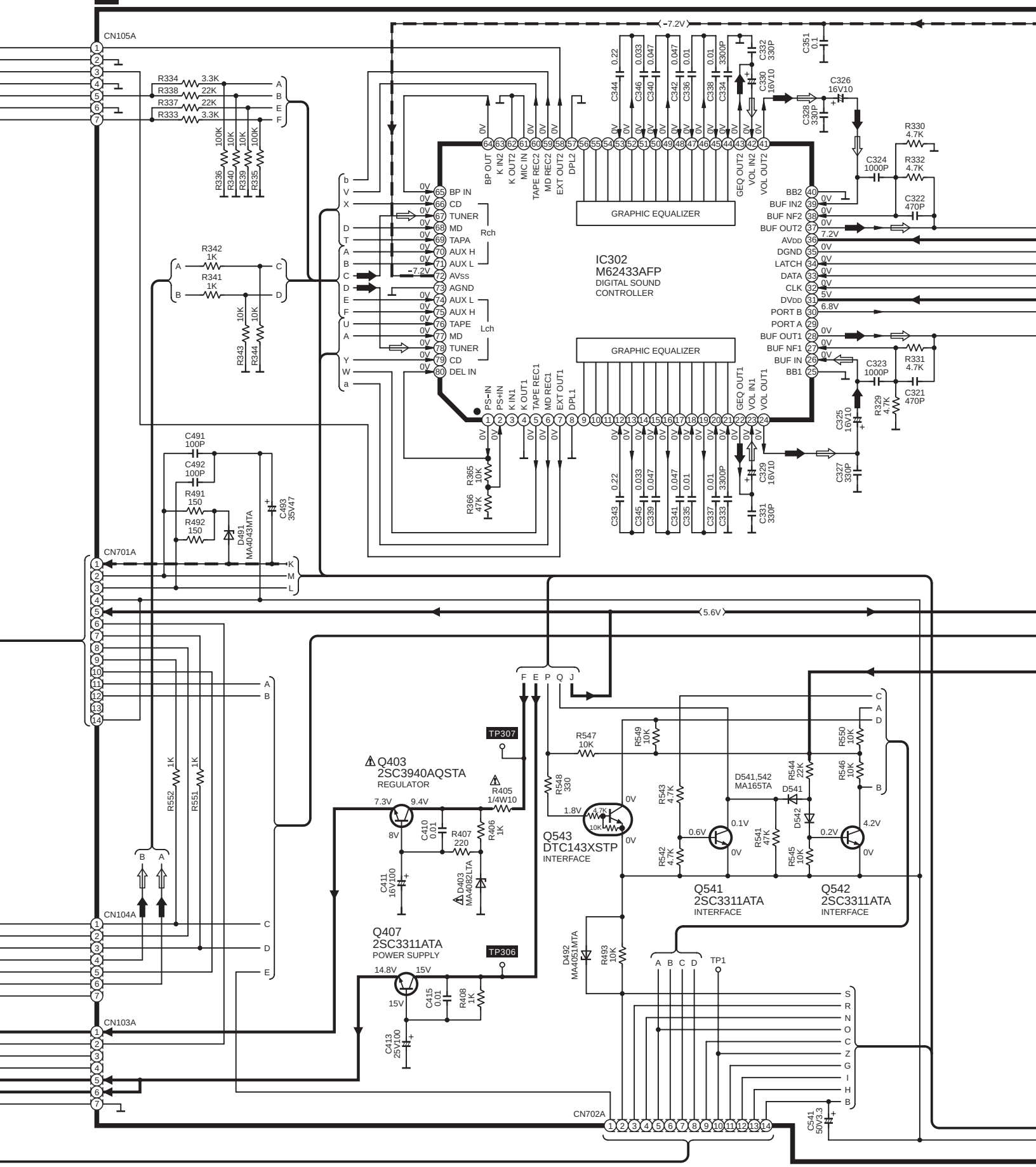
F MAIN CIRCUIT

→ : POSITIVE VOLTAGE LINE

→ : NEGATIVE VOLTAGE LINE

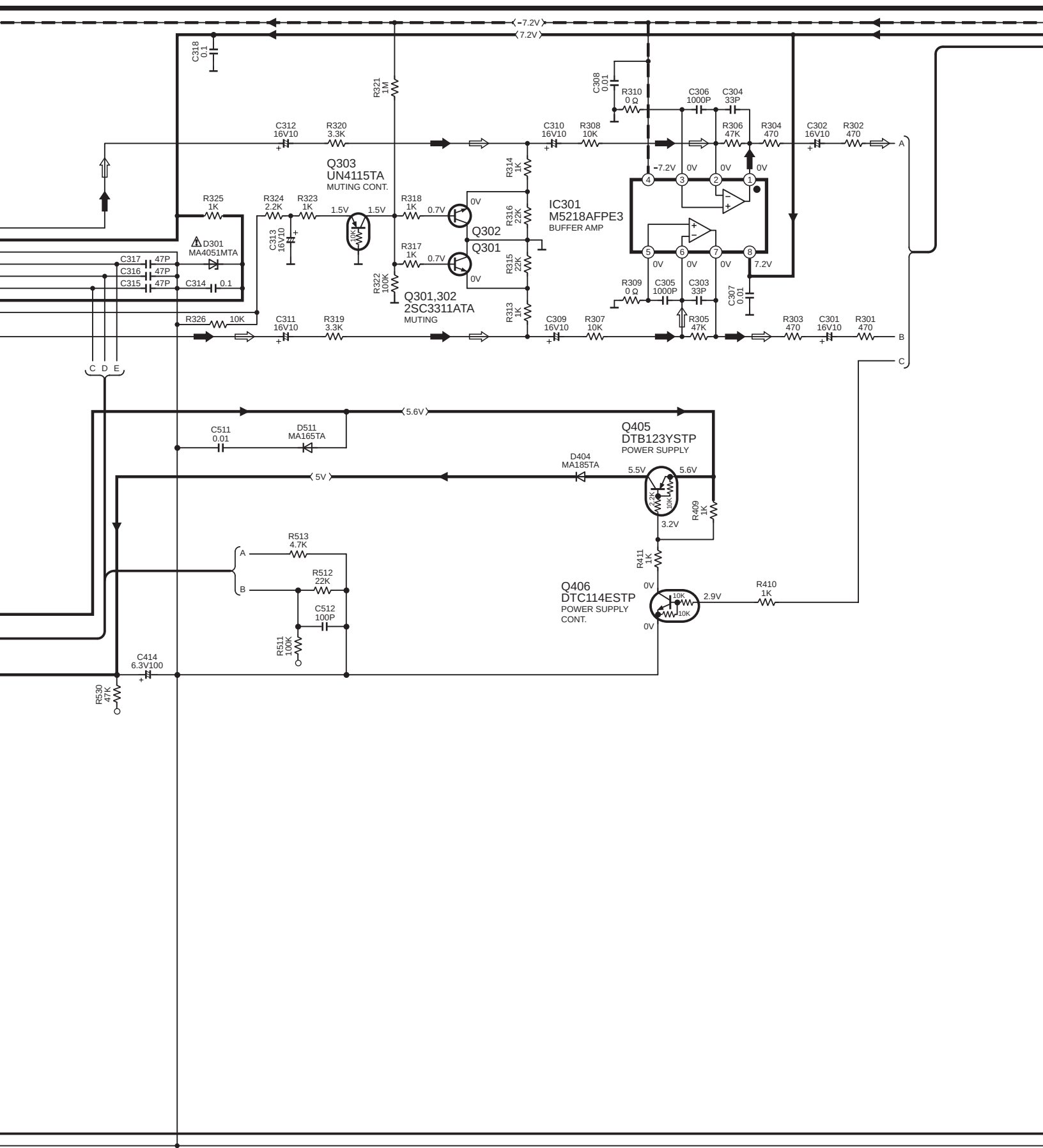
→ : FM SIGNAL LINE

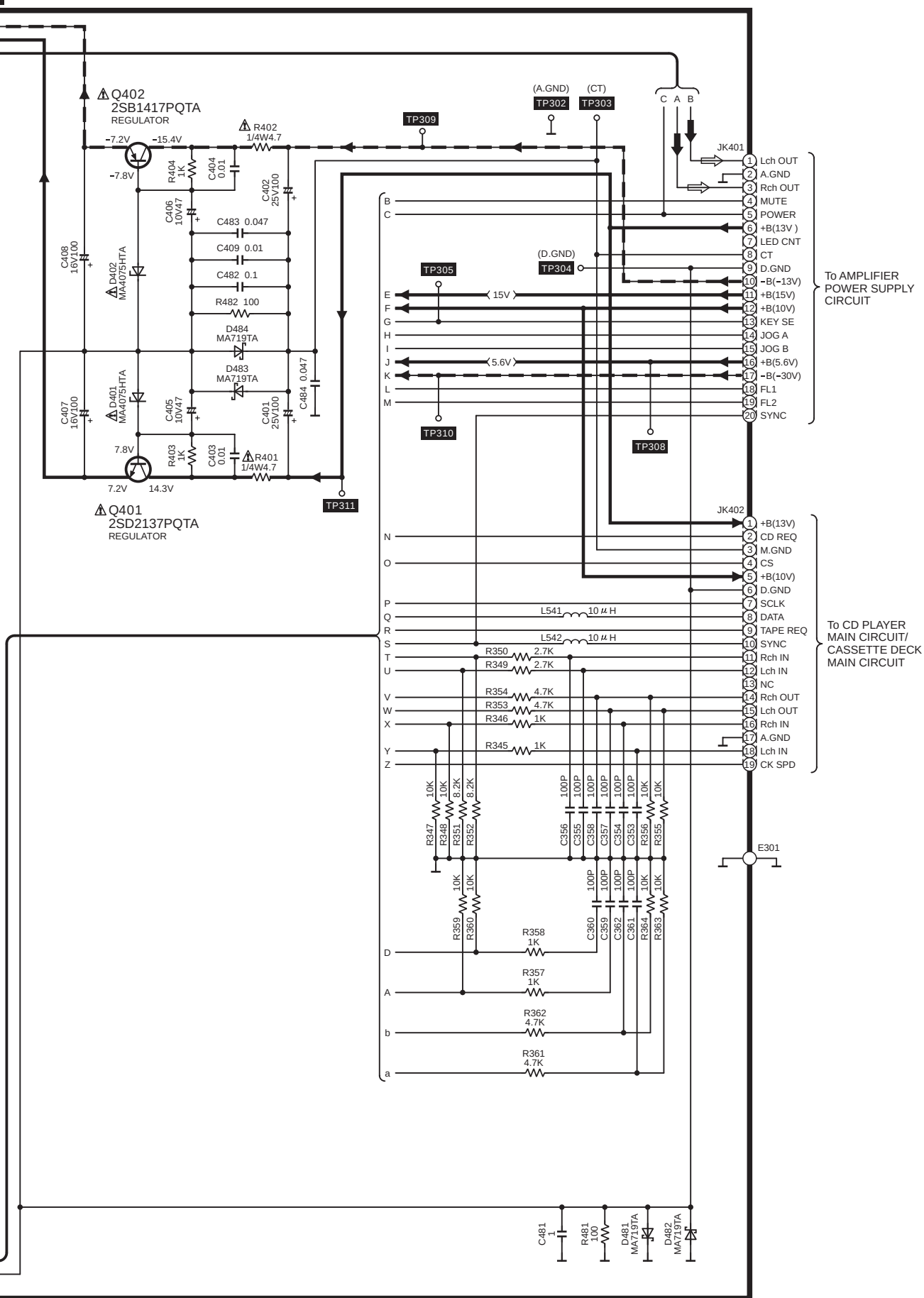
→ : AM SIGNAL LINE



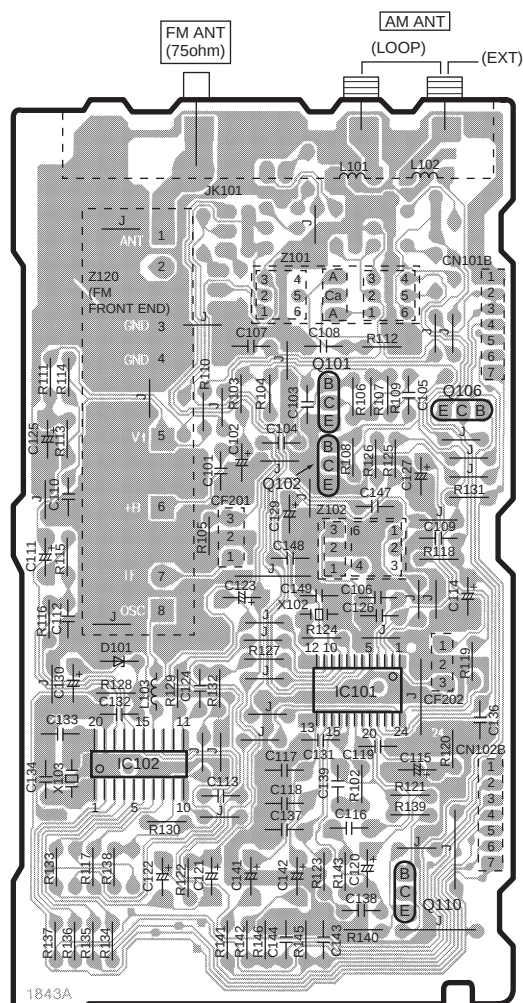
SCHEMATIC DIAGRAM-8

→ : POSITIVE VOLTAGE LINE - - - - - : NEGATIVE VOLTAGE LINE ⇨ : FM SIGNAL LINE ➡ : AM SIGNAL LINE

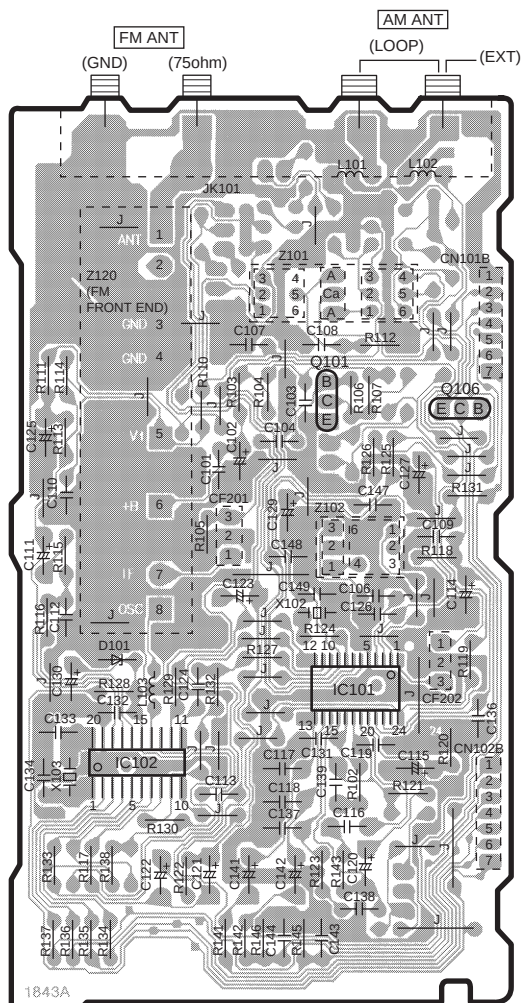




A TUNER P.C.B. For [GC] area.



(REP2592C-T)



(REP2592B-T)

■ ELECTRICAL PARTS LOCATION

Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.
A TUNER P.C.B. For [GK] area.															
IC101	4C	CF202	4C	R110	3B	R124	4B	R138	5A	C107	2B	C121	5B	C137	5B
IC102	4B	X102	4B	R111	3A	R125	3C	R139	5C	C108	2B	C122	5B	C138	5C
Q101	3B	X103	4A	R112	2C	R126	3C	R140	5C	C109	3C	C123	4B	C139	4B
Q102	3B	CN101B	2C	R113	3A	R127	4B	R141	5B	C110	3A	C124	4B	C141	5B
Q106	3C	CN102B	5C	R114	3A	R128	4A	R142	5B	C111	3A	C125	3A	C142	5B
Q110	5C	JK101	2B	R115	3A	R129	4B	R143	5B	C112	4A	C126	4C	C143	5B
D101	4A	R102	4C	R116	4A	R130	5B	R145	5B	C113	4B	C127	3C	C144	5B
L101	2C	R103	3B	R117	5A	R131	3C	R146	5B	C114	4C	C129	3B	C147	3C
L102	2C	R104	3B	R118	3C	R132	4B	C101	3B	C115	4C	C130	4A	C148	3B
L103	4B	R105	3B	R119	4C	R133	5A	C102	3B	C116	5B	C131	4B	C149	4B
Z101	2B	R106	3C	R120	4C	R134	5A	C103	3B	C117	4B	C132	4A		
Z102	3C	R107	3C	R121	4C	R135	5A	C104	3B	C118	5B	C133	4A		
Z120	2A	R108	3C	R122	5B	R136	5A	C105	3C	C119	4C	C134	4A		
CF201	3B	R109	3C	R123	5B	R137	5A	C106	4C	C120	5C	C136	4C		
A TUNER P.C.B. For [GC] area.															
IC101	4E	X102	4E	R112	2F	R125	3F	R138	5D	C109	3F	C122	5E	C137	5E
IC102	4D	X103	4D	R113	3D	R126	3F	R141	5E	C110	3D	C123	4E	C138	5E
Q101	3E	CN101B	2F	R114	3D	R127	4E	R142	5E	C111	3D	C124	4E	C139	4E
Q106	3F	CN102B	5F	R115	3D	R128	4D	R143	5E	C112	4D	C125	3D	C141	5E
D101	4D	JK101	2E	R116	4D	R129	4E	R145	5E	C113	4E	C126	4F	C142	5E
L101	2E	R102	4E	R117	5D	R130	5E	R146	5E	C114	4F	C127	3F	C143	5E
L102	2F	R103	3E	R118	3F	R131	3F	C101	3E	C115	4F	C129	3E	C144	5E
L103	4E	R104	3E	R119	4F	R132	4E	C102	3E	C116	5E	C130	4D	C147	3F
Z101	2E	R105	3E	R120	4F	R133	5D	C103	3E	C117	4E	C131	4E	C148	3E
Z102	3E	R106	3E	R121	4F	R134	5D	C104	3E	C118	5E	C132	4D	C149	4E
Z120	2D	R107	3F	R122	5E	R135	5D	C106	4F	C119	4F	C133	4D		
CF201	3E	R110	3E	R123	5E	R136	5D	C107	2E	C120	5E	C134	4D		
CF202	4F	R111	3D	R124	4E	R137	5D	C108	2E	C121	5E	C136	4F		

TP309 (D.GND) TP306 TP303 (A.GND) TP311 TP304 To AMPLIFIER TP302 TP307 To CD PLAYER / CASSETTE DECK



G

H

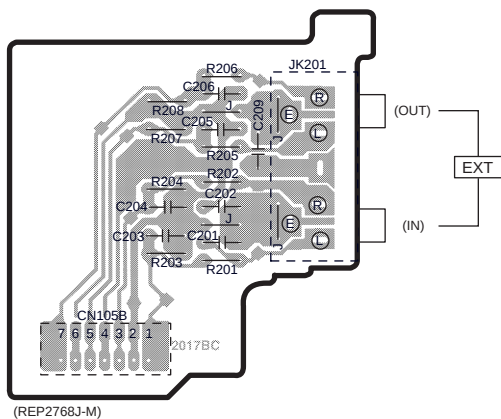
I

J

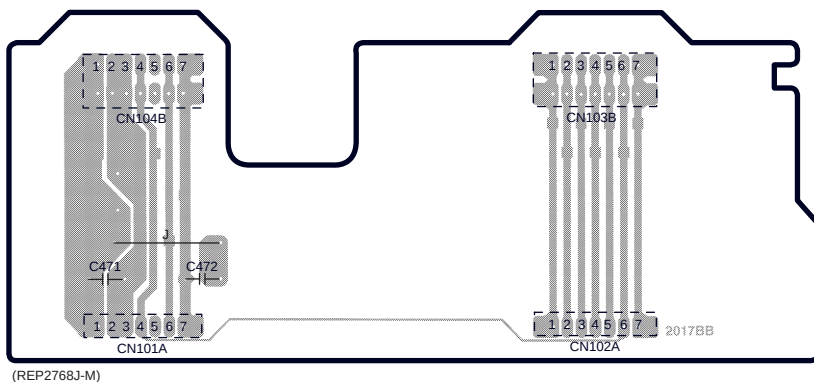
K

L

D IN/OUT TERMINAL P.C.B.



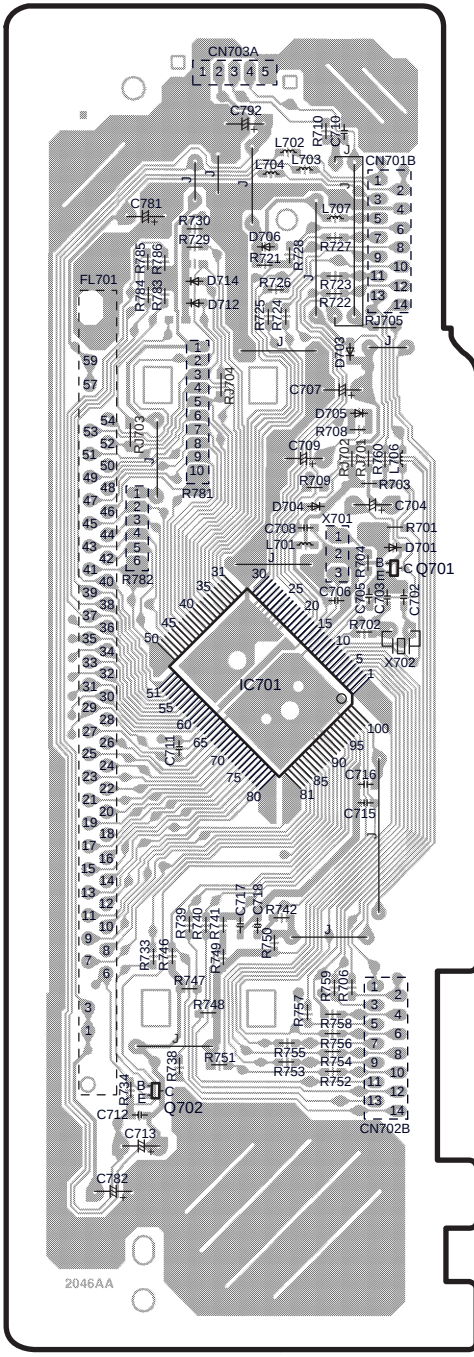
E CONNECTOR P.C.B.



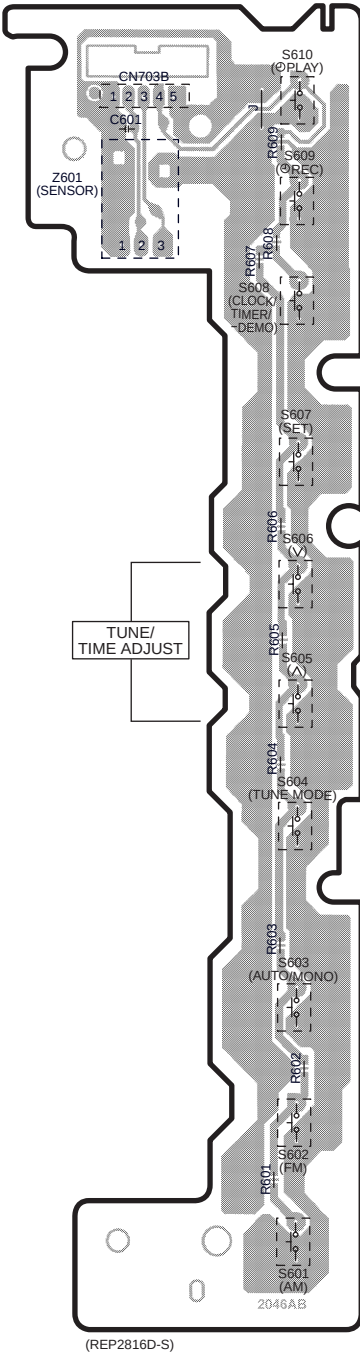
ELECTRICAL PARTS LOCATION

Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.
F MAIN P.C.B.															
IC301	4C	L541	2B	R308	5C	R340	3D	R402	5A	R550	7C	C328	4F	C361	2E
IC302	4E	L542	2C	R309	4C	R341	4D	R403	4A	R551	6D	C329	5E	C362	3E
Q301	5C	CN103A	3C	R310	4C	R342	4D	R404	5A	R552	6D	C330	4F	C401	5A
Q302	5C	CN104A	5C	R313	5D	R343	4D	R405	4B	C301	4B	C331	5E	C402	5A
Q303	5D	CN105A	3E	R314	5D	R344	4D	R406	4B	C302	4A	C332	4E	C403	4A
Q401	4B	CN701A	8F	R315	5C	R345	4C	R407	4B	C303	4C	C333	5D	C404	5A
Q402	5B	CN702A	8B	R316	5C	R346	4C	R408	4B	C304	4C	C334	4E	C405	5A
Q403	4B	JK401	2B	R317	5C	R347	4D	R409	6A	C305	4C	C335	5D	C406	5B
Q405	6A	JK402	2C	R318	5C	R348	4D	R410	6B	C306	4C	C336	4F	C407	4B
Q406	6B	E301	3C	R319	5D	R349	2D	R411	6A	C307	4C	C337	5D	C408	5B
Q407	4B	(TP1)	6A	R320	5C	R350	2D	R481	3D	C308	4C	C338	4F	C409	5A
Q541	7B	TP302	2B	R321	5D	R351	2D	R482	2B	C309	4C	C339	5D	C410	4B
Q542	7B	TP303	3B	R322	5D	R352	2D	R491	7F	C310	4C	C340	3F	C411	4B
Q543	6B	TP304	3A	R323	5D	R353	3D	R492	7F	C311	5D	C341	5D	C413	4B
D301	5F	TP305	8B	R324	5E	R354	3E	R493	7B	C312	5F	C342	3F	C414	6B
D401	5B	TP306	3A	R325	5F	R355	3C	R511	7C	C313	5D	C343	5D	C415	4B
D402	5B	TP307	3A	R326	5E	R356	2C	R512	7C	C314	4E	C344	3F	C481	3D
D403	4B	TP308	6B	R329	5E	R357	3E	R513	7C	C315	5E	C345	5D	C482	3D
D404	6A	TP309	3A	R330	5F	R358	3E	R530	6F	C316	5E	C346	3F	C483	2B
D481	3D	TP310	6A	R331	5E	R359	3E	R541	7B	C317	5E	C351	4D	C484	2B
D482	3D	TP311	3B	R332	5F	R360	3E	R542	7B	C318	4E	C353	2C	C491	7F
D483	3B	R301	4B	R333	3E	R361	2E	R543	7B	C321	5E	C354	2C	C492	7F
D484	3B	R302	4A	R334	3E	R362	3E	R544	7B	C322	5F	C355	2D	C493	7F
D491	7F	R303	4C	R335	3D	R363	2E	R545	7B	C323	5E	C356	2D	C511	7C
D492	7B	R304	4C	R336	3D	R364	3E	R546	7B	C324	5F	C357	3C	C512	7C
D511	7C	R305	4C	R337	3E	R365	4D	R547	6B	C325	5E	C358	2C	C541	7A
D541	7B	R306	4C	R338	3E	R366	4D	R548	6B	C326	4F	C359	2E		
D542	7B	R307	4C	R339	3D	R401	4A	R549	6B	C327	5E	C360	2E		
D IN/OUT TERMINAL P.C.B.															
CN105B	2I	R202	2I	R205	2I	R208	1I	C203	2I	C206	1I				
JK201	2J	R203	2I	R206	1I	C201	2I	C204	2I	C209	2J				
R201	2I	R204	2I	R207	2I	C202	2I	C205	2I						
E CONNECTOR P.C.B.															
CN101A	5H	CN102A	5J	CN103B	4J	CN104B	4H	C471	4H	C472	4H				

B FL P.C.B.



C OPERATION P.C.B.



ELECTRICAL PARTS LOCATION

Ref. No.	Lo. No.	Ref. No.	Lo. No.
B FL P.C.B.			
IC701	5B	R742	6B
Q701	4C	R746	6B
Q702	6A	R747	6B
D701	4C	R748	6B
D703	3B	R749	6B
D704	4B	R750	6B
D705	3B	R751	6B
D706	3B	R752	6B
D712	3B	R753	6B
D714	3B	R754	6B
L701	4B	R755	6B
L702	2B	R756	6B
L703	2B	R757	6B
L704	2B	R758	6B
L706	4C	R759	6B
L707	2B	R760	4B
X701	4B	R781	3B
X702	4C	R782	4A
FL701	3A	R783	3A
CN701B	2B	R784	3A
CN702B	6B	R785	3A
CN703A	2B	R786	3A
R701	4C	RJ701	4B
R702	4B	RJ702	4B
R703	4B	RJ703	3A
R704	4B	RJ704	3B
R706	6B	RJ705	3B
R708	3B	C702	4C
R709	4B	C703	4B
R710	2B	C704	4B
R721	3B	C705	4B
R722	3B	C706	4B
R723	3B	C707	3B
R724	3B	C708	4B
R725	3B	C709	4B
R726	3B	C710	2B
R727	3B	C711	5B
R728	3B	C712	6A
R729	3B	C713	7A
R730	2B	C715	5B
R733	6A	C716	5B
R734	6A	C717	6B
R738	6B	C718	6B
R739	6B	C781	2A
R740	6B	C782	7A
R741	6B	C792	2B
C OPERATION P.C.B.			
Z601	2D	CN703B	2D
S601	7D	R601	7D
S602	7D	R602	6D
S603	6D	R603	6D
S604	5D	R604	5D
S605	5D	R605	4D
S606	4D	R606	4D
S607	4D	R607	3D
S608	3D	R608	3D
S609	2D	R609	2D
S610	2D	C601	2D